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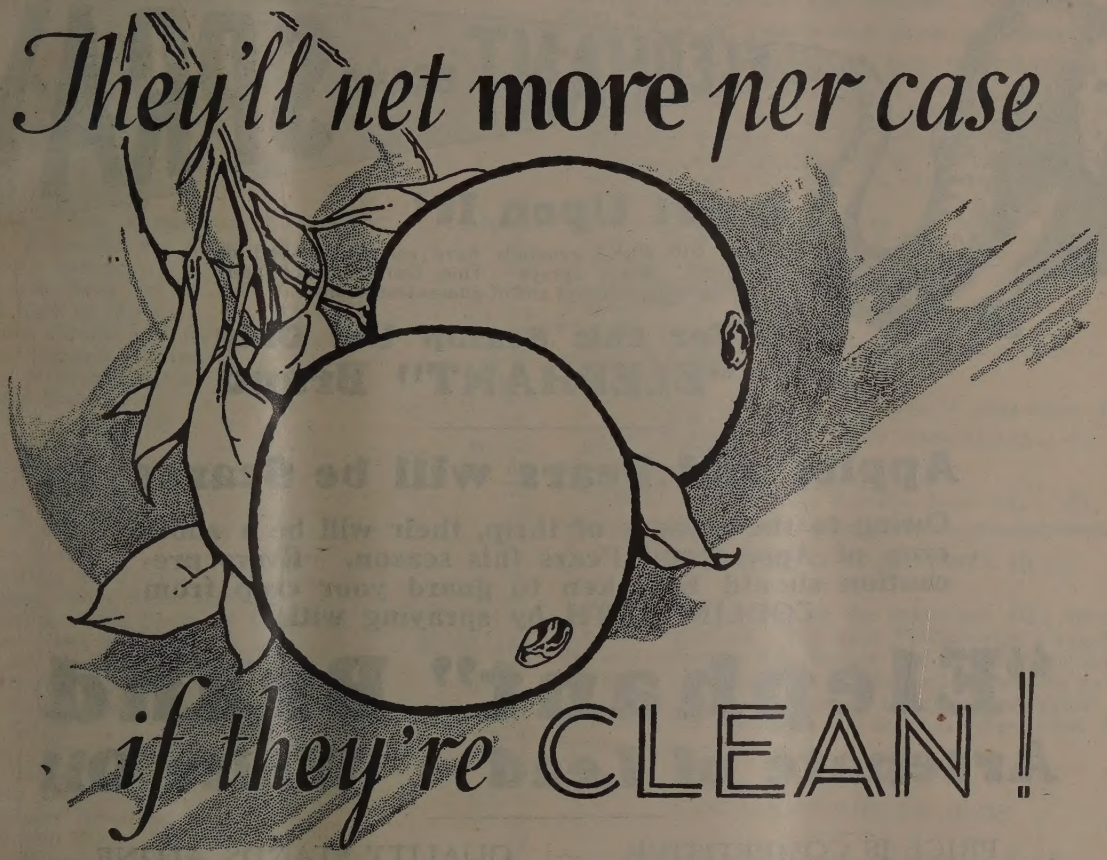

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APPLE SALES IN STANTHORPE (Q.).

A record Apple deal for the Stanthorpe (Q.) district has been completed. The Apex Fruitgrowers' Co-operative Association, at The Summit, sold forward 8,000 cases of Apples, to be packed in The Summit Community packing shed. The price is said to be highly satisfactory to growers. The purchaser was the Australian Fruit and Produce Co.

CONTROL OF WOOLLY APHIS.

Aphelinus mali Parasite Successful in Brazil.

An official report from Brazil is to the effect that the woolly aphis Eriosoma lanigera, one of the most injurious of the aphides, did not assume serious proportions in Brazil last season, this being undoubtedly due to the action of its parasite, Aphelinus mali, now widely distributed in Brazil.

Fruit for London.—The green fruit trade between London and some of the overseas Dominions has grown to immense proportions.

Cargoes of Apples are discharged at the Royal Victoria and Albert, King George V. and Tilbury Docks by modern types of cranes or by chain and gravity conveyers which lift the cases from the cool chambers of the ships and distribute them to craft for water conveyance or deposit them in the well-lighted, airy and perfectly equipped warehouses provided by the Port of London Authority. Here they are sorted to merchants' requirements and delivered to railway wagons or vans for conveyance to the London markets, such as Covent Garden, Spitalfields and Borough, which are within easy reach.

As each of the docks referred to is railway connected, fruit can be speedily despatched to any destination.

"Now, Jimmy, can you tell me what is necessary to make a chicken-run?" asked the teacher.

"Yes, teacher," said Jimmy. "Just clap you hands and say 'Shoo.'"

Fruit Packing Instruction.

Valuable Work by Victorian Department of Agriculture.

VERY VALUABLE SERVICE is being rendered to the Victorian fruit industry by the Fruit-packing Instruction Branch of the Department of Agriculture. Mr. Basil Krone is the senior officer, with Mr. Harris as assistant.

A summary of the work is as follows:—

Apple and Pear packing classes for school children have, in the past, been conducted regularly in the following fruitgrowing districts:—Harcourt, Harcourt North, Campbell's Creek, Elphinstone, East Burwood, Mt. Waverley, Bunyip, Garfield, Pakenham Catholic School, Pakenham State School, Pakenham Upper, Pakenham Army Road School, Doncaster East, Doncaster West, Croydon, Ringwood, Hastings, Red Hill, Tyabb Upper, Tyabb Lower, and Somerville. (Ravenswood will be a new district commencing this season.)

The increasing demands made upon the Department, however, from time to time, by growers and packing houses, have made the position such that it is impossible to cope with the work (there being only two officers available); therefore a number of the districts have had to be discontinued.

All school children's packing classes are conducted in co-operation with the Education Department, and although it is regretted that the packing instructors will be unable, for this year at least, to fulfil further requests for children's classes, the procedure for forming a class will be of interest.

If a new school children's packing class is desirable, it is necessary, in the first instance, for a written request to this Department from the district interested. This is submitted to, and, if approved of by the Education Department, a class is formed of not more than eight senior school children, preferably those of fruitgrowers, and is conducted for one hour, one day each week, at a time when children have "free period" or "occupations."

Special Children's Itinerary.

As some school children's packing classes commence in the export season, and others not until the cool-storage season (about June-July), their itinerary for the coming year, although not confirmed, will probably be:—Harcourt, Harcourt North, Campbell's Creek, Bunyip, Pakenham, Pakenham Upper, Tyabb Upper, Tyabb Lower, Hastings, Somerville, and Ravenswood.

General Itinerary (Children Excepted).

The Apple crop is lighter than usual, but other fruit, such as Grapes, Pears, Tomatoes, Passions, and citrus, are much in evidence, with the result that the packing instructors have been, since December, heavily booked up until next April. After April, Oranges commence and the season goes on again.

The slackest period is the month of December, while from January until April the instructors have to apologise for being unable to cope with the rush. June, July and August is an extremely busy period with citrus fruit, but from then onward until December, again normal conditions exist when Oranges, Lemons, Grapefruit, and Mandarins are packed to supply regular trade, also Apples and Pears are gradually released from cool-storage. The year of our heavy crop necessitated the packing instructors working twelve Saturday afternoons and Sundays to keep faith with growers in some districts.

Immediate Itinerary.

Export of Pears—2nd to 4th week January. Shepparton.
Export of Pears—February/March. Southern Pear Association.
Export of Apples—4th to 12th February. Quantong Association.
Tomatoes, local market and Sydney—4th week February (booked up for 12 days). Portland Tomato Growers' Association.
Grapes, local market and export—4th week February-1st week March. Woorinen.
Grapes, local market and export—Dates not fixed. Tresco.
Grapes, local market and export—Dates not fixed. Lake Kangaroo.
Apple packing and Tomato packing competition, etc.—11th/12th February. Portland Show.
Export of Apples—3rd/4th week February. Stanley.
Export of Apples—2nd/3rd February. Pomonal.
Grapes, local market and export—Middle February and mid March. Mildura.

While this itinerary is proceeding, it will be unusual if numerous other requests in connection with all sorts of fruit are not received.—When the citrus season approaches, every citrus packing shed in the State will be visited.

Manuring Stone Fruit Trees.—The Wasleys Agricultural Bureau, asks: "Is it beneficial to apply sulphate of ammonia to the roots of stone fruit trees?

Reply (by Geo. Quinn, Chief Horticultural Instructor).—If the trees have pale foliage and are generally lacking vigor, sulphate of ammonia should prove of value. It may be applied in granulated form if the soil is very moist and further rain is anticipated or if irrigation can be applied at once to dissolve it into the soil. In this latter case, open a ring trench around the spread of the tree, sow the fertiliser in same, and then fill the trench with water. Use from 1 lb. to 5 lbs., according to the sizes of the trees. If dissolved in water prior to application, use from half to one ounce per gallon of water. As far as present knowledge can guide us, early spring time is deemed to be the best period at which to apply sulphate of ammonia to deciduous trees.—"S. Aust. Jour. Agric."

The Currant Borer.—"Currants," Raetihi, writes:—What treatment can I adopt to rid Black Currant bushes of borer, and what is the life-cycle of the grub?

Answer (by Horticulture Division).—The Currant borer is the larva of a moth known as the Currant clear-wing (Sesia tipuliformis), of black and yellow color. The wings are about ⅞ in. across when expanded, a considerable area of which is transparent, which gives the insect its common name. Emerging at about midsummer, the moth lays eggs singly, and they soon hatch out and burrow the stems, to pupate and emerge the following summer. The treatment usually adopted is to prune hard and burn the prunings, as they contain many grubs. If this is done in early autumn, and the bushes sprayed then with Bordeaux plus arsenate of lead, the health of the plants would be better in this and other respects.—N.Z. Journal of Agriculture.

THAT SETTLED 'EM.

The Dashing Colonel: "I was in the middle of the jungle when suddenly I saw a tribe of savages charging down on me."

Miss O'Fluffles: "Good Heavens! What did you do?"

The D.C.: "I stared at them until I was black in the face, and they took me for one of their own tribe."

Leaf Scorch of Fruit Trees

(By Frank M. Read, M.Agr.Sc., Senior Horticultural Research Officer.)

DURING the growing season of 1931, scorching of the leaves of deciduous trees in certain localities has been very serious, while in a large number of centres, though not very serious, it has been bad enough to warrant attention.

This scorching has developed as a browning and drying out of the margins of the leaves. In bad cases only a small area of the centre of the leaf remains green, the remainder being brown and shrivelled. The tree so affected resembles one which has been severely scorched by a fire. Many observant growers have commented on the fact that such injury has been more prevalent in the very wet year through which we have passed than ever before, whereas they would have expected to notice more leaf scorching in a hot, dry year.

The trouble has been attributed in many quarters to spray injury, and, in particular, to the quality of the water used in the spray mixtures. Of course, some spray injury may have been caused on a few orchards, but most of the leaf scorch which appeared in Victoria in 1931 was not due to such a cause. Although in this State, in normal seasons, we do not suffer much in this way, English Apple-growers have learned to look on leaf scorch of their trees as one of their major problems. It is to England, therefore, that we turn for information. Wallace, of the Long Ashton Research Station, Bristol, has done notable work in this direction.

Laboratory experiments on bush fruits, and Apple trees grown in pots of sand and watered with nutrient solutions of various composition, indicated to him that leaf scorching of the type described was associated with the nutrition of the plant. It was determined that, under conditions such as these,

deficiency in potash

was largely responsible, and, when abundant nitrogen accompanied the lack of potash, scorching became very much worse. Wallace's laboratory experiments have since been extended to the field, where they have found verification and have met with the most encouraging success.

While it is not possible to state that the results obtained in England will be reproduced under our local conditions, it is reasonable to suppose that their experiences will be helpful to us. In the absence of sufficient local information, therefore, the following remarks and recommendations are based on the experiments of the English workers.

Three types of soil are particularly conducive to scorch:—

1. Very light sandy soils, prone to drying out;
2. Shallow soils overlying an impervious subsoil; and
3. Water-logged soils needing drainage.

It will be seen that in each of these cases faulty water supply to the tree would ensue. The first two soils would tend to dry out in a hot spell of weather, and the third, by restricting the root system, would also limit the amount of water absorbed by the roots. Scorching has been associated with these three types in Victoria this year, but, in addition, severe injury was experienced at Bacchus Marsh under soil conditions which do not readily fall under these headings.

Many growers have been surprised to see leaf scorch in such a phenomenally wet year, but there are very good experimental grounds for supposing that heavy and continuous rains will encourage this condition. It has been demonstrated that, if a leaf be placed in a vessel of water for a short time, a considerable quantity of minerals, including potash, will be dissolved out of the leaf. The excessive summer rains in Victoria this year undoubtedly have leached much potash from the foliage, and accentuated the trouble.

In one instance with which I am familiar—a Beaconsfield orchard—severe scorch immediately followed the very heavy December rains. For this reason it is possible that, in normal years, many of the orchards affected this year will not suffer. There are, however, a number which have shown these symptoms for some years past, and on these action should not be delayed further.

It is recommended that where leaf scorching is appreciable, fairly heavy potash manuring should be carried out for three or four years, or until such time as the trouble disappears. This can be done by applying potash

A Rome Beauty Apple tree severely affected with leaf scorch on half its branches.

either in the form of sulphate or muriate (the latter is the cheaper at the present time), at the rate of 3 or 4 lb. per tree. This dressing should be applied preferably towards the end of August each year.

On orchards not seriously affected, a dressing of potash at the rate of 1 lb. per tree each year probably will suffice, and in those cases where the heavy dressing is given for a few years 1 lb. per tree may be sufficient after the trouble has been largely eliminated. Each grower must judge his own case for himself, but my view is that he should be generous with his potash for a year or so, and not be discouraged by a delayed response. When he has secured his response, however, he might well try much smaller annual applications of fertiliser.

It has been mentioned that high soil nitrogen seems to accentuate potash deficiency, and experiments have shown that the balance between nitrogen and potash in the plant is very important. Obviously, then, heavy nitrogen manuring on trees affected with leaf scorch should be avoided.

On experimental plots

at Beaconsfield in 1931, it was noticeable that on those fertilised with sulphate of ammonia (3 lb. per tree) scorching was more severe than on those which received potash, at the same rate, in addition to the nitrogen, while on the plots receiving potash only, scorching was practically absent. On rich soils high in nitrogen, it may be necessary to lower that nitrogen by allowing weeds, etc., to grow, instead of practising the usual clean cultivation.

In this country we are apt to believe that under no other system than clean cultivation could an orchard be successfully carried on. There are, however, parts of the world in which an orchard cannot be efficiently managed under clean cultivation, and sod culture has to be resorted to.

It is conceivable that under certain conditions, and in certain years, clean cultivation is not the best system of orchard management in Victoria. In a wet year, like the last, especially when leaf scorch was apparent, I consider that to allow the natural herbage to grow unchecked was often an advantage; and clean cultivation, even though it did no harm, was, in many instances, a waste of time. In a dry year, of course, when moisture is a limiting factor, the position is radically different.

Let us hope that in the season ahead leaf scorch will be scarce. If it should appear, however, I would be grateful if orchardists would keep an accurate record of it and notify this department.—"Journal of Agriculture," Victoria.

Leaf scorching of Jonathan Apple trees, causing very scanty foliage.

Orange and Lemon Trees.

"Orchardist," Tatura, asks:—"What is a good cure to stop very old Orange and Lemon trees from gumming in the trunk, and also to stop Navel Oranges from splitting, too?"

Answer (by J. M. Ward, Superintendent of Horticulture):—The gumming of the trunks of Orange and Lemon trees is probably due to collar rot. The treatment consists of cutting away the diseased area, which is brown in color, until the healthy white and green wood and bark are exposed. The surface should then be coated with a Bordeaux paste, made by mixing equal parts of lime and copper sulphate (bluestone), with sufficient water to form a paste. All chippings of diseased bark should be collected and destroyed by burning. Dusting the soil around the trunk of the tree with lime is an additional preventive. Water should not be allowed to stand around the trunk.

The splitting of Navel Oranges is fairly prevalent in the Goulburn Valley, and appears to be caused by fluctuating moisture conditions within the tree. It may be largely minimised by careful attention to irrigation.

"THE FRUIT WORLD ANNUAL."

A Valuable Publication.

A COMPREHENSIVE REVIEW of the Australian Fruit Industry is contained in the "Fruit World Annual," a copy of which has now been published. Cultural and statistical matters are dealt with in detail; all phases of the industry are included—deciduous and citrus fruits, dried fruits, the jam and fruit canning industry.

A special section is devoted to control of insect pests and fungus diseases, 54 of the major pests of diseases are depicted in natural colors, methods for control being set out.

Apple packing is dealt with in detail and illustrated, also the manuring of orchards. On the subject of fruit tree planting lists of varieties are given, suitable for local, interstate and export trade. In the cold storage section it is noted that Victoria has provision for storing over 1,600,000 cases of fruit, Tasmania 664,000. Details are given of the cold storage facilities in all the Australian States and New Zealand.

On the subject of export, a detailed and penetrating article is included, showing a full quantity of fruit imported into Great Britain from all parts of the world, fruit crops in England and Wales, importations from the British Dominions, together with a detailed review of the Australian, New Zealand fruit export for the 1931 season.

The marketing of fruit in Australia is capably dealt with: a calendar is included showing the times of the arrival of the various fruit on the market. The figures show that there are nearly 393,000 acres under fruit and vines in Australia, the annual crop being valued at £13,000,000. Details are given regarding the fruits grown in each State.

Two special articles are included: (1) A review of the year's activities in the Apple export industry, there having been some remarkable developments in organisation. (2) The effects of tariffs and reciprocity.

Lists are given of all the fruitgrowing associations in Australia and New Zealand, together with a complete list of the registered dried fruit packing sheds.

Regarding 1932 export, the "Fruit World Annual" estimates 5,300,000 cases of Apples and Pears will be exported overseas from Australia and New Zealand.

The "Fruit World Annual" is a very valuable publication. It should be in the hands of every grower, shipper, manufacturer, and all connected with the fruit industry, —presenting as it does such a bird's eye review of this important primary industry, at the same time containing accurate statistics, which make it invaluable as a work of constant reference.

Copies have been sent to subscribers. Additional copies are obtainable at 1/6 each from the publishers, the Fruit World Pty. Ltd., Box 1944 G.P.O., Melbourne.

INTERSTATE FRUIT TRADE.

We have received a communication from a growers' agent in Brisbane, handling large quantities of Brisbane fruit and vegetables. He is desirous of receiving consignments of Cherries, Plums, Apricots, Apples, Pears, etc. In return for regular consignments from southern markets he would be prepared to forward Queensland cucumbers, Pineapples, Tomatoes, carrots, parsnips, pumpkins, etc. He would be pleased to wire prices realised for southern fruits and look after growers' interests generally. Further particulars regarding this enquiry may be obtained on application to the "Fruit World" office.

THE THRIPS MENACE.

This is Now the Major Problem of the Fruit Industry.

Thrips Investigation League is Being Formed.

Fruitgrowers, Manufacturers, Scientists and All Interested in the Industry Invited to Join.

Conference to be held on February 10.

THE MAJOR PROBLEM now confronting the fruit industry in Australia is that of the thrips.

It is believed that control measures will be discovered, as has been the case with other pests and diseases.

The problem is an Australian one—(a) the pest (Thrips imaginis) is native to this country; other countries have thrips, but not the particular variety which is operating so ruinously here; (b) the pest is found in all parts of the continent, particularly on the mainland, though last season they were noted in Northern Tasmania.

The Council for Scientific and Industrial Research has detailed an entomologist (Mr. J. W. Evans), who is giving his whole time to thrips research. Dr. Davidson and Dr. A. E. V. Richardson, of the Waite Research Institute, Adelaide, the Departments of Agriculture, and others are giving valuable assistance.

* * * * *

There has been an urgent request for the services of a horticulturist and a chemist to be added to the present thrips investigation staff. Towards the necessary expenses the V.F.M.A. has voted £50. The Gippsland Fruit Marketing Association has donated £10. The executive of the Australian Apple and Pear Export Council has authorised an appeal to its affiliated Associations in the several States for contributions towards the funds.

* * * * *

The losses suffered by fruitgrowers because of thrips are felt by all sections of the community which have an interest in the fruit industry.

In order to discuss the whole question, including the possible formation of a Thrips Investigation League, it has been decided by the Executive of the Victorian Fruit Marketing Association to call a conference of all interests connected with the fruit industry, manufacturing, financial, canning, transport, marketing, together with growers, the Department of Agriculture, Council for Scientific and Industrial Research, and others. This meeting will be held in the Board Room, Commercial Travellers' Association, Flinders-street, Melbourne, on Wednesday, February 10, at 11 a.m.

It is expected that at this meeting Dr. Davidson, of Adelaide, will be in attendance. Dr. Rivett, Chief Executive Officer, Council for Scientific and Industrial Research, will also be present.

A large attendance is earnestly desired in order to promote this unified endeavor which is being made to solve what has become the most serious menace to the continuance of the fruit industry.

QUESTIONNAIRE RE THRIPS.

Answers from Portland and Pomonal, Vic.

Recently the Victorian Fruit Marketing Association sent out a questionnaire re thrips, as follows:—

1. What kinds of fruit do you grow and what varieties?
2. Dates of blooming?
3. Date on which thrips were first noticed?
4. Varieties which have set a reasonable crop?
5. What arrangements for cross-pollination have these varieties which have a reasonable crop?
6. What arrangements for cross-pollination have you for the varieties which have not set?
7. What shelter from wind have the varieties referred to in questions 5 and 6?
8. What other factors do you consider were involved?
9. What are the arrangements for drainage in the orchard?
10. Please state any observations on this subject which you think will be of service.

Some of the answers were published in last month's "Fruit World." The following are additional replies:—

From J. R. Bolton, Portland.

(1) Apples mainly; Jonathans, Rome Beauty, Gravenstein, Delicious, Munroes.

(2 and 3) Cannot state clearly.

(4) Jonathans, Gravenstein and Munroes.

(5) Munroes are interplanted with some Jonathans. Gravensteins are in a block, no other varieties blooming at the same time. Some of the Jonathans have Munroes near them; some have a Rokewood graft in them.

(6) Romes have no cross pollination and have borne well without any as a rule. The same applies to Delicious.

(7) The orchard is sheltered on west and south by Pine breakwinds and forest, and fairly good shelter over half the orchard. The orchard slopes towards east and north-east. The other half, farthest from breakwinds, slopes towards south-west, and does not get so much shelter. The Romes and some Jonathans are on this latter part. Delicious are sheltered pretty well, so are the Gravensteins and Munroes. Ten trees of Romes are well sheltered on the north-east slope, and the remainder of Jonathans are mainly on this north-east slope. Some of the orchard is underground drained, some of it drained by natural porous subsoil. The Romes are undrained; but are thrifty. Some Jonathans are not thrifty on well-drained area. The ten Romes near the sheltered corner and on the north-east slope bloom a week or more earlier than the Romes on the south-west slope. They have a heavier setting than the Romes on the south-west slope. Last season Jonathans containing a strong Rokewood branch, flowering well, set no more fruit than those without a Rokewood graft, and not near any Rokewood or Munroes. Cross-pollination did not in any way make for heavier setting. This season the trees flowering earliest escaped the thrips more than later-flowering ones.

From W. J. Cox, Pomonal.

(1) Apples and Pears; (2) full about September 27; (3) September 15.

(4) Cleo., Esopus Spitzenberg, Stone Pippin, Majetins, Reinettes, French Crabs, Jonathans, Peasgood, Statesman, Norfolk Beaton. (These varieties are very good.) Rome Beauty and Munroes only fair.

(5 and 6) Interplanted. (7) No windbreaks.

(8) Thrips the cause of failure of Five Crown, Delicious, Buncombe, King David, and Nickajack, also Lord Wolseley.

(9) Drainage by two-foot lengths three-inch piping and open drain.

10. Four acres Jonathans planted by themselves failed. Putting in some Granny Smiths.

The Australian Bush Nut

(Macadamia ternifolia, spp.)

An Edible Nut with Commercial Possibilities.

(H. W. Eastwood, H.D.A., Fruit Instructor, N.S.W. Dept. of Agriculture.)

ALTHOUGH THE AUSTRALIAN BUSH NUT is indigenous to northern New South Wales and Queensland, the local interest taken in it is not in keeping with its great commercial possibilities. Its value and importance, however, are slowly gaining recognition on the North Coast, where a few commercial areas have been planted in recent years, but most plantings are for ornamental purposes. Other countries into which it has been introduced have realised its full worth.

Besides producing a very nutritious food nut, which compares very favorably with any other edible nut, it grows into a very symmetrical tree, useful for providing shade and shelter, and for beautifying the farm landscape.

Suggested Lines of Improvement.

The nuts ripen during March, which is an opportune time to select seed for raising young trees. Selection is one means of securing desirable characteristics in the nuts, and of eliminating undesirable ones. There is a big variation in the nuts, foliage and habits of the growth of this tree. Some of the disadvantages existing at present are that the trees produce prickles or spines on the margins of leaves, they bear double, single, or half nuts having a hemispherical shape, there is variation in the quality of the meat of the nuts, and some nuts crack or open prematurely, but the chief faults are the thickness of the shell and roughness of its surface, which factors make the nuts very difficult to open even with crackers. A typical thin-shelled nut is what is required, the larger the better. Unfortunately the very thin-shelled nut has a tendency to run small and is usually undersized.

Seed for propagating should only be selected from trees which have shown desirable characteristics, such as vigorous and thrifty growth, regular and heavy bearing habits, the production of well-filled and uniformly-shaped nuts, freedom from disease, thinness of shell, and earliness in reaching the stage of commercial bearing.

Plant in Autumn or Spring.

When the nuts have been selected they should be planted while still fresh, and the sooner they are planted after reaching full maturity the better. This will ensure good germination, for as these nuts do not maintain their vitality for long periods, the percentage of germination decreases in proportion to the length of time between full maturity and planting.

Autumn planting—March to May—with new season's seed, will give a better germination, the nuts will strike more quickly and a better root system is likely to develop. The seed should be planted in properly prepared seed beds in which is incorporated a big percentage of sand, or in pots, preferably the latter, and require covering to a depth of 1 to 2 inches with soil or leaf mould, which is much better, if procurable. The soil should be kept moist by periodical waterings and shading if necessary.

If the nuts are kept for spring planting they should be placed in moist sand—stratified—after harvesting and should be kept at a low temperature and in a dark place until required.

Methods of Propagation.

Although there are individual instances where the thin-shelled nut has reproduced true to seed, the general experience with seedling fruit and nut trees is that they do not come true to type, and this method cannot be relied upon. Moreover, it is a slow method of reproduction. The only sure way of reproducing the desired characteristics of the parent tree in the offspring is by vegetative propagation, and it would appear that this method will have to be practised before the growing of Macadamia nuts can be established on commercial lines.

Vegetative propagation of this nut tree has so far not received much attention and although they may prove more difficult to raise in this way than other fruit trees, it is considered that skilled nurserymen would not be seriously troubled in budding or grafting these trees, and under favorable conditions the percentage of "takes" should make it a profitable undertaking. Some experimenting with the different methods of budding and grafting would be necessary before the most successful method was discovered, and perhaps patch budding and side tongue and whip grafting of year-old seedling trees could be used as a basis for trial.—"Agric. Gazette of N.S.W."

IMMATURE GRAPES.

Notwithstanding repeated warnings against the sending of immature Grapes to market, it is stated that numbers of Grape growers are adopting that practice. It is reported also that many consignments are being sent in packages not branded with the grade standards, as provided by the Fruit and Vegetables Act regulations.

The Victorian Minister of Agriculture said that Departmental Officers had already seized many consignments, and tests which had been made showed that these were scandalously below the maturity standard fixed by the regulations (1.075 specific gravity, equivalent to 10 degrees Baume).

The Department did not intend to issue any further warning, but would prosecute growers and agents who forwarded to market, or sold to the public, any Grapes which were immature or contained in packages not branded in the manner prescribed by regulation.

THE RUTHERGLEN FLY.

The Rutherglen fly has been active in Victoria recently.

The Government Entomologist states that the parasites can be kept in check by using benzole emulsion, kerosene or tobacco sprays. Some time ago a phenyle spray used in the Goulburn Valley when the orchards were badly infested was productive of good results. The formula is:—One quart phenyle, 3 lb. washing soda, 1 bar yellow soap and 40 gallons of water. The soap is shredded and dissolved in hot water, the other ingredients are added, and the mixture is made up to 40 gallons.

CITRUS GROWERS' CONFERENCE

Local Marketing and Export Problems

Proposal for Marketing Bill Defeated, but Compulsory Levy Favored.

Limitation of Agents Discussed.

THE ELEVENTH ANNUAL CONFERENCE of the Victorian Central Citrus Association was held at Melbourne on January 20 and 21.

Those in attendance were as follows:—Directors, Messrs. A. W. Schwennesen, Murrabit (Chairman); Capt. Halhed (Merbein); P. Cobbett (Bamawm); J. S. Cotton (Cobram); J. A. Parkes, General Manager V.C.C.A.; G. E. Kitchin Kerr, Market Representative. Delegates: (Mildura), W. M. Newton; (Murrabit), D. J. Walters; (Nanneella), J. Logan; (Shepparton), J. B. McDonald; (Bamawm), P. Cobbett; (Merbein), R. K. Rodwell; (Perricoota, N.S.W.), R. J. Watson; (Tongala), G. V. Wood; (Long Lake), C. V. Rees; (Cobram), J. S. Cotton; (Curlwaa, N.S.W.), L. R. Strothers; (Ngawe), P. Rossiter; (Red Cliffs), A. E. Cameron.

Visitors included Senator R. D. Elliott, Messrs. J. M. Ward (Superintendent of Horticulture), E. E. Meeking; Exports Superintendent; J. L. Provan (Dept. of Agriculture); C. H. Cameron, Sec. Mildura and District V.C.C.A. Executive); S. J. O'Brien (Murrabit); W. J. Lynn (Bamawm); Rickard (Manager Mildura Co-op., Merbein); R. M. Eldridge, —. Walker, N. D. Cox, P. Makin, Dr. Young (Council for Scientific and Industrial Research); A. G. Whitlam (Lecturer in Marketing, Melbourne University); W. A. Webb and W. A. Thiele (Southern Victorian Fruitgrowers' Association); V. H. Lohan (Development Branch, Prime Minister's Department); F. H. Metters and C. H. Katekar (Murray Citrus Association, S. Aust.).

In welcoming the delegates, the Chairman said that unfortunately the V.C.C.A. had lost ground during the year, nevertheless the Association had marketed 200,000

CITRUS GROWERS' CONFERENCE—DELEGATES AND VISITORS.

Front row (left to right)—J. M. Ward (Superintendent of Horticulture), J. S. Cotton (Cobram), P. Cobbett (Bamawm), J. A. Parkes (General Manager, V.C.C.A.), A. W. Schwennesen (Chairman), R. Watson (Perricoota, N.S.W.), Captain D. Halhed (Merbein), G. E. Kitchin Kerr (Market Representative), Dr. Young (C.S.I.R.).
Second row—C. H. Cameron (Mildura), A. E. Cameron (Red Cliffs), J. G. McDonald (Shepparton), J. L. Provan (Dept. of Agriculture), D. Walters (Murrabit), W. A. Webb (Doncaster), P. Rossiter (Ngawe), W. J. Lynn (Lockington).
Third row—J. Logan (Nanneella), G. V. Wood (Tongala), P. Makin (Tongala), E. E. Meeking (Exports Superintendent), W. A. Thiele (Doncaster), C. V. Rees (Long Lake), W. J. Rickard (Merbein), L. R. Strothers (Curlwaa, N.S.W.).
Fourth row—H. Alston ("Age"), J. Callender ("Weekly Times"), F. Robinson ("Australasian"), V. H. Lohan (Prime Minister's Dept.), A. G. Whitlam (Melbourne University), R. E. Boardman ("Fruit World"), R. K. Rodwell (Merbein), W. M. Newton (Mildura).

cases more than in any previous season. Organised marketing was essential. He hoped the Victorian Government would lose no time in filling the vacant position of Citriculturist in the Department of Agriculture in place of the late Mr. S. A. Cock.

The Minister for Agriculture (Mr. Slater), in opening the conference, said he regretted that the Legislative Council had rejected the Primary Products Marketing Bill. He did not believe that organised control could be achieved by the levy alone. Probably the appointment would be made soon: the Department had an officer who had done a lot of research work in the citrus industry. One section of the industry had recently been criticised for not doing more research work, but these critics had apparently not taken into account the state of the public finance.

Proposed Marketing Bill.—There was a long discussion on this subject, in which growers expressed divergent views. Mildura favored the Marketing Bill, also a compulsory pool pack system with a Control Board to provide for equalisation of marketing and supervision of grading and packing.

The powers under the proposed Marketing Bill were admitted to be very wide, and the question was asked as to whether it would be possible under the Act to exercise only some of the provisions. After the views of the Minister for Agriculture was sought on this subject, the opinion was expressed that on the Act being passed and a Board constituted, the full powers would be exercisable.

Some delegates stated that control legislation had benefited the dried fruit industry, and would be equally beneficial to the citrus industry.

The opposite view was expressed by others who could see no analogy between the dried fruit industry and the marketing or such a highly-perishable product as citrus fruit.

The fact that both New South Wales and Queensland had control legislation for citrus growers and were not exercising same, was noted. Mr. McDonald (Shepparton), said he would vote in favor of a Primary Products Bill being made law in order to have the legislation on the Statute Book, but on a vote of the growers being taken he would vote against the operation of the Act.

Mr. W. A. Thiele, Doncaster, said that compulsory control of marketing and compulsory levies were wrong in principle. Compulsory marketing schemes were the ruination of the country. The Southern growers produced the bulk of the Lemons in this State. They strongly opposed both the proposed Marketing Bill and the proposed compulsory levy.

Mr. Walters, Murrabit, said he thought the Southern growers were adopting a selfish attitude in opposing the compulsory levy. Growers in his district did not mind the levy, but were opposed to any form of compulsion in the sale of their produce. After a vigorous and helpful debate a resolution in favor of the Compulsory Marketing Bill was defeated by eight votes to five, and the resolution in favor of a compulsory levy was carried unanimously.

Marketing Citrus Fruits.—Mr. G. E. Kitchin-Kerr, Market Manager of the Federal Citrus Council, presented a detailed report of marketing activities. (A summary is published elsewhere in this issue.) The subject of marketing citrus fruits was then vigorously discussed.

Mr. J. Logan, Nanneella, moved in favor of the number of accredited agents in Melbourne being increased to twelve. This was supported by Mr. McDonald, Shepparton, who said that citrus growers produced other fruits and had made business friendships with Melbourne agents, some of whom were not on the accredited list. Growers requested an enlarged list to include these agents.

Mr. Walters, Murrabit, desired the V.C.C.A. Board to consult with the Executive of the Wholesale Fruit Merchants' Association and others, for the purpose of discovering the most efficient method of marketing citrus fruit. There should be no limitation of agents where the firms were of good financial standing.

The opposing views were expressed by Mr. Metters, South Australia, the Chairman (Mr. Schwennesen), and others, who submitted that the increasing of the number of agents was not a permanent solution to the problem of marketing. To enlarge the list now would mean that the list would need to be continually added to. It was the disloyalty of the growers which was doing harm to the movement.

In reply to a question, the Market Manager (Mr. Kerr) said that the percentage of Oranges being sold outside the Association was increasing.

After a lengthy debate the Conference agreed to a motion authorising the Board to appoint additional agents, provided that there be no increase in the rate of commission—7½ per cent.

On the subject of commission, some delegates pointed out that it was more economical to pay a higher rate if the nett returns to the grower were larger.

Appreciation of Market Manager.—A resolution of appreciation of and confidence in the Market Manager (Mr. Kerr), was carried unanimously.

Empire Preference.—Senator R. D. Elliott attended and presented convincing statistics showing the benefits which would accrue to Great Britain and all the Dominions by means of a well-conducted Empire Preference programme.

Export of Citrus.—Mr. Parkes gave details of the vigorous efforts made last season with regard to export to Canada, New Zealand, Great Britain and the East. There are many difficulties in the way of profitable export to places other than to New Zealand. (Details are published in the "Fruit World Annual.")

With regard to the losses on last season's export, the V.C.C.A. would meet same without further recourse on the growers.

Exports to Canada.—Mr. R. M. Eldridge, who had just returned from Canada in connection with the sales of dried fruit, expressed the view that there should be a good market at Vancouver for Australian Oranges; the quality and packing must be first rate; trade could be developed through the wholesale trade and chain stores. Through Vancouver the western and mid-western Canadian provinces could be developed. The preference was 2/8 per case on Oranges. Australia should supply the goods or the preference would be lost. Mr. Eldridge was thanked for his address.

At the instance of Mr. Walters, the Conference adopted a resolution recommending that no fruit be exported unless certified by grower or packer that the fruit was picked and packed for export. It was also decided to ask for a rigid enforcement of the regulations regarding the obliteration or defacement of brands on second-hand cases.

Complaints were made that synthetic drinks were being offered by retailers as fresh fruit drinks. It was decided to obtain instances and advise the Health Department.

It was decided to ask for a remission of the duty and Sales Tax on fumigants and spray materials.

Suggestions regarding the establishment of a Central Packing House in Melbourne, also Lemon curing plant, were referred to the Directors.

MARKETING CITRUS FRUITS IN MELBOURNE.

Report by G. E. Kitchin Kerr, Market Manager, Federal Citrus Council of Australia.

AT the Annual Conference of the Victorian Central Citrus Association, the report of the market manager, Mr. G. E. K. Kerr, was considered in detail and adopted. A summary is as follows:—

1932 Prospects.—Prospects for 1932 are hopeful, as the interim report indicates that the yield will be lighter than last year—Navels are light to medium, Valencias and Lemons medium. The warm summer is regarded as a hopeful sign of good keeping quality.

The weather conditions early in 1931 were unfavorable to the good keeping quality of the fruit. There was unexpectedly high production of Navels in the districts depending on the Melbourne market. Last season early Navels clashed with late Valencias, the opening prices being 4/- to 6/- lower than 1930. Uncontrolled fruits contributed to the fall in price. Difficulties were accentuated by heavier deliveries to outside agents by growers who admittedly wished to avoid levy payments. Uncontrolled consignments caused uneasiness among buyers and restricted business. The irony of the position was that criticism of the Association came from disloyal growers who failed to realise that prices would have been several shillings higher had the bulk of the fruit been under reasonable control.

Values during midwinter were exceptionally low as the result of continued wet conditions on the groves.

The value of co-ordinated marketing was illustrated when in August a review of the crop position showed that the original estimates in South Australia and Victoria had been far too low. Quotas of Navels and Commons were then increased. Deliveries in September, October and November were the highest on record, yet with the better methods of control of supplies, prices advanced substantially.

Market Arrivals.—Up to the end of December, Association agents' arrivals from the three States reached the total of 398,000 cases, compared with the previous highest of 382,000 in 1930, and 341,000 in 1928. Victorian and border arrivals to the accredited agents were 212,000 bushels, including 11,500 Lemons, compared with 187,000 (including 20,000 Lemons), in 1930, and 210,000 bushels (including 25,000 Lemons), in 1928. S.A. arrivals to accredited agents were 172,000 bushels, mainly Navel Oranges, compared with 135,000 in 1930, 160,000 in 1929, and 70,000 in 1928. N.S.W. arrivals to accredited agents were 14,000, out of a gross 74,000, which included 40,000 coastal Mandarins, compared with 57,000 out of a gross 210,000 (79,000 Mandarins), in 1930. Net wholesale market deliveries, exclusive of factory, export and private purchase deliveries, and of purchased N.S.W. Mandarins were approximately 790,000 bushels, compared with the 750,000 in 1930, and 669,000 in 1928.

* * * * *

Although the proportion of fruit cleared by the V.C.C.A. was not more than 50 per cent., market regulation was nevertheless effective owing to the competition between association and outside agents. The accredited agents handled the bigger portion of the better quality of fruit. A controlled market stabilised the prices enabling the retail trade to purchase more freely and with confidence. The stabilised market was the main factor in the exceedingly high rate of consumption of citrus fruits per head in Victoria.

Surplus Production.—In the very informative report prepared in 1930 by the Development Branch of the Prime Minister's Department, Australian citrus growers were warned that steps would have to be taken to handle the increased production that could be expected within the next five years. How far that warning was justified is shown by the startling increase in the 1931 crop. The report gave as the estimate of the 1936 production from Victoria alone 534,000 bushels of Oranges. Actually the 1931 production of Navels alone from Victorian districts, not including the border area, was 620,000 bushels of citrus (compared with 450,000 in 1930, and 360,000 in 1929) exclusive of Lemons and Valencias, for which latter the Victorian crop can be estimated at 140,000. Similarly the production in S.A. practically reached the Development Branch's estimate for a 1936 production of 545,000 bushels. Had reasonably good weather conditions prevailed, the Melbourne quota for these crops would have been marketed without much difficulty at substantially higher prices. In the circumstances, export overseas would not have provided an immediate solution to this problem as the bulk of the surplus fruit was far below export or even local market quality from the point of view of grade, size and condition.

Prices.—The average wholesale return from the Melbourne Market up to December was 6/7 a case, compared with 7/6 last year. The average for Lemons was about 4/3 a case. In the early part of the season Mandarins sold fairly well, but the average was reduced to 6/6 owing to wasty fruit in September. Grapefruit averaged over 10/- for all grades. The co-operation of the Railway Department and a Grapefruit Week cleared supplies and found an additional outlet at enhanced prices. The Melbourne market handled four times the quantity of Grapefruit in 1931 than in any previous year.

Lemons.—The low Lemon returns were due to the big increase in the production in the metropolitan area. Up to 1931 the Doncaster district produced from 35,000 to 45,000 bushels, but the 1931 estimate was for a production of 90,000 cases, which apparently was exceeded. Metropolitan growers can afford to take lower prices than country growers. Although the 1932 crop, both in metropolitan and country areas is expected to be much lighter, it is obvious that growers must seek an additional outlet for Lemons. Last year there were very limited purchases for juice purposes owing to the accumulation of stocks during the cool summer. The interstate demand was lessened. There should be more curing of Lemons in country districts.

Valencias.—The opening of the Valencia season was delayed by the continued arrival of Navels. More than half of the Valencia crop had been sold at apparently good prices, but difficulty would probably be experienced in clearing the remainder satisfactorily. Growers should realise there was a strictly limited demand for Oranges during summer, even for drink purposes. The public desired other fresh fruits for novelty and change.

LEMON CURING.

In answer to an enquirer on the subject of Lemon curing, Mr. J. M. Ward, Superintendent of Horticulture for Victoria, advises as follows:—

1. Cut the Lemons very carefully with as little stalk as possible. Wear gloves.
2. Best size is when they reach 2½ in. diameter, irrespective of color.
3. Keep green and ripe Lemons separate, as their life is different; and
4. Immerse Lemons in dry chaff, dry sawdust, or dry sand, in kerosene cases, and keep in a cool and well-ventilated but not draughty place.

BLACK SPOT OF CITRUS.

A Reminder Regarding Spraying.

EXPERIMENTS carried out by the N.S.W. Department of Agriculture have shown that although there is no visible evidence of black spot on the fruits until the September or October of the year following, infection of Oranges with this disease takes place just at and after blossoming, and that a programme of at least two sprayings, commencing at the blossoming stage, is necessary for control.

For many years past growers of Oranges in the coastal districts have been seriously concerned owing to the losses caused by this disease, particularly in the case of the Valencia crop.

A recent report of the Biologist of the Department indicates, however, that by means of the above-mentioned programme almost complete control is possible. While unsprayed trees in the experimental area had practically every fruit affected with spot, on trees sprayed with Bordeaux mixture at late blossoming last October and again either seven or ten weeks later not more than 5 per cent. of the fruit was affected.

The spray recommended is Bordeaux mixture (6-4-80) with approximately half a gallon of red spraying oil added per 80 gallons as a spreader. The spray should be applied under good pressure, say, 250 to 300 lb. The first application should be made when about half the blossom has fallen, and the second six to eight weeks after blossoming. Every effort should be made to keep a covering of spray on the young developing fruit.

In some years it is possible that a programme including three spray applications will give best results. Such a programme would include an application when approximately half the blossoms have fallen, an application approximately five weeks later, and a third application approximately five weeks after the second.

BROGDEX PATENTS IN U.S.A.

Paraffin Wax Treatment is Included in Patent Rights.

SOME INTERESTING INFORMATION regarding the Brogdex patents is to hand from Mr. Bruce McDaniel, editor of "Citrus Leaves," Redlands, Cal., U.S.A., as follows:—

The Brogdex Company owns numerous patents covering not only its processes, but special machinery used in the application of those processes. An infringement suit, based on alleged violation of the patents covering the use of the borax wash as a cleansing agent and for the purpose of retarding blue mould decay was won by the company through all the lower courts. The Supreme Court decided against the patents largely on the basis, in my judgment, of interpleadings of States and officials upon the theory that the right to use borax washes should rest in all the people rather than in a private corporation.

This decision in nowise affected the machinery or application patents and did not touch on the Brogdex processes which pertain to the application of the paraffin wax.

As a result, due to the fact that the application service rendered by the company is cheaper than is possible through other machinery and by unskilled labor, the users of the Brogdite (borax wash) process have continued on under original contracts the same as though the decision had not been against the patent. While many attempts have been and are being made to find a legal method to apply the borax wash more cheaply and without violating other patents of the company, so far such endeavors have not been successful.

The company undoubtedly will reduce its royalty charges so soon as earnings permit.

The use of the borax wash alone, without following it with the paraffin application, appears to be unsatisfactory. While it retards decay, the use of the wax inhibits shrinkage and enables the fruit to keep its weight, color and juice content.

I believe that the company at present is preparing to, or already has, commenced action against alleged infringement of its Brogdex (wax) process.

IRRIGATION PROBLEMS AT MURRABIT.

The Murrabit Citrus Association recently approached the Council for Scientific and Industrial Research, with a request that Mr. A. V. Lyon, Officer-in-Charge of the Commonwealth Research Station, Merbein, should visit the district and personally examine the difficulties associated with the growth and irrigation of citrus in this area. Mr. Lyon accordingly visited the district on January 17, and subsequently addressed the settlers at a public meeting.

The Chairman of the Citrus Association, in welcoming and introducing Mr. Lyon, explained that the visit was the result of the negotiations of his Association. Mr. Lyon had initiated many improvements in irrigation methods on the lower river, and the settlements in those areas now placed the highest responsibility on him. They desired to extend his influence to the Murrabit district.

Mr. Lyon, in opening his address, explained that, as a research worker, he naturally limited his remarks to observations with which he had been concerned personally, and to research results. His experience of the Murrabit district was too limited to warrant any definite recommendations in respect to their routine practice. It would be of interest, however, to indicate the directions in which irrigation research was proceeding in the Mildura district.

Mr. Lyon, by means of prepared graphs, showed the results that had been obtained, in regard to the frequency and method of irrigation, on certain defined soil types, and later, at the invitation of the Chairman, answered numerous questions submitted by the audience.

The question of raising a research committee, in order to establish district tradition in irrigation and cultural practice was raised. The meeting decided that they should form such a committee, and that they desired further assistance from Mr. Lyon in their endeavors to standardise the very diversified practices and opinions at present existent in the settlement.

IN MY GARDEN.

There's a little song for me,
  Haunting all the wind-blown flowers,
Lilting, oh, so merrily—
  Crooning, through the happy hours.

Dainty reveries at play,
  Weaving tender spells, it seems—
Lullabies for buds asway,
  Cradle songs for fairy dreams.

Removal of Arsenical Spray Residue From Apples.

(By A. G. Strickland, M.Agr.Sc., Horticultural Research Officer, Dept. of Agriculture, Victoria.)

THE USE OF LEAD ARSENATE SPRAYS for codlin moth control has been standard orchard practice in Victoria for many years, and the unsightly residue of arsenic remaining on sprayed fruit at picking time has always been a problem of some importance. The substitution of one or more oil sprays for some of the arsenical applications, and the use of combined arsenic and oil sprays, in recent years, has intensified the problem, owing to the binding and weather-proofing action of the oil. In cases where arsenic-oil sprays have been used, it is impossible to remove the residue, even by hand-wiping of individual fruits.

The British health authorities have fixed a legal limit to the quantity of arsenic which any foodstuff may contain, and persons offering for sale any foodstuff, 1 lb. of which contains more than 0.01 grain of arsenious trioxide (As_2O_3), are liable to prosecution. From time to time complaints have been received from Great Britain, that Apples imported from Australia contain more than the legal minimum of arsenic, and show visible spray deposit.

Such complaints must adversely affect the market for our Apples, and it is therefore necessary for our export fruit not only to comply with the legal standard, but also to be absolutely free from any white stain which may prejudice the purchaser.

In some quarters it is questioned whether the quantity of arsenic remaining on sprayed fruit could be harmful to the consumer, but authorities state that even very small amounts of arsenic over extended periods of time may be injurious, and that the lead generally used in combination with the arsenic may be even more dangerous. The fact remains that, even though fruit be below the statutory limit in its arsenic content, the presence of visible spray stain will prejudice the buyer.

Hand-wiping has been resorted to as a means of removing spray residue, but even under the best of conditions it is ineffective. It is impossible to remove residue from the ends of the fruit by this means, and the method is quite inadequate where oil sprays have been used. Perhaps the chief objection, however, is the time and labor involved in hand-wiping, and it is certain that a cheaper method is desirable.

The cleansing of fruit by chemical washing has been generally adopted in the United States of America and other countries, and the most successful wash consists of hydrochloric acid at a strength of ½ to 1 per cent. Such a solution will remove up to 90 per cent. of the residue, and where the method is properly carried out no injury to fruit need be caused.

During the 1930-31 fruit season a test to determine the efficacy of the hydrochloric acid treatment was made at Harcourt (Vic.). Four cases of Apples, heavily coated with arsenical residue, were used, the treatment being as follow:—

Case No. 1.—No treatment.
Case No. 2.—Dipped in water 3 min. and hand-wiped.
Case No. 3.—Dipped in 1 per cent. hydrochloric acid for 2 min.
Case No. 4.—Dipped in ½ per cent. hydrochloric acid for 3 min.

A wooden cask was employed to contain the acid, and treatment was carried out by the immersion of a partly filled case of fruit in the solution. A top was lightly attached to the case of fruit in order to prevent the Apples from floating out, and the case plunged up and down in the acid bath. After immersion in the acid, the cased fruit was allowed to drain for a few minutes, and then transferred to another cask of clean water for rinsing. Rinsing after acid treatment must be carried out thoroughly, otherwise injury to the fruit will result.

Effect on Arsenical Residue of Washing in 1 per Cent. and ½ per Cent. Hydrochloric Acid.

Samples of untreated and washed fruit were submitted to the Agricultural Research Chemist for analysis, the results of which are given in Table I.:—

Table I.

Treatment.	Grains per lb. of Fruit. Arsenic.	As_2O_3.
1. Untreated	0.043	0.057
2. Washed with water and hand-wiped	0.011	0.015
3. Washed with ½ per cent. Hydrochloric acid for three minutes..	0.0018	0.0024
4. Washed with 1 per cent. Hydrochloric acid for two minutes ..	0.0018	0.0024

It will be noted from Table I. that the fruit used in this test contained 0.057 grains of As_2O_3 per lb., i.e., nearly six times the legal limit. Washing with water, and wiping with a cloth reduced the arsenic content to 0.015 grains per lb., but this quantity is still in excess of the British tolerance. Washing with both ½ per cent. and 1 per cent. hydrochloric acid reduced the arsenic content to approximately one-quarter of the quantity allowed by law.

Storage Tests on Treated Fruit.

Acid treatment when properly carried out results in no serious injury to the fruit, and on the contrary will often add to the attractiveness, especially when the crop is heavily coated with spray residue. Where insufficient attention is paid to rinsing the fruit after acid treatment, serious injury may occur. There is no danger of acid-contaminated fruit reaching the consumer, as hydrochloric acid is volatile, and quickly disappears during storage where rinsing has not been thoroughly carried out. However, any excess acid left on the fruit will collect in the calyx and stem cavities, and although it will ultimately evaporate, it may persist long enough to injure the fruit. The injury usually appears as a bleaching of the skin, and formation of depressed areas; if arsenic is present, these spots turn black.

Effective rinsing will preclude any possibility of the trouble, and the most reliable guide to rinsing is the tongue. If the tip of the tongue be applied to the calyx end of the rinsed fruit, any residual acid will be readily detected by a sharp stinging sensation.

In certain cases damage may be caused by penetration of the acid wash through open calyx tubes, but this problem is encountered only where the Apples are deeply submerged in the acid bath. Where varieties such as Jonathan and Delicious are being treated, care should be taken not to submerge them too deeply.

Storage rots may be somewhat more prevalent in washed fruit, owing to bruising of the fruit during handling, and the concentration of mould spores in the washing

solution. The trouble may be avoided by careful handling of the fruit, and frequent change of the wash water. In the test at Harcourt, the fruit was placed in cool store immediately after treatment. Examination after one month showed the development of a certain amount of calyx injury in the acid-treated fruit. This was not unexpected, as rinsing facilities were insufficient, owing to a failure of the water supply whilst the test was being carried out. In most cases the injury was comparatively slight.

After a period of five months in cool storage, the fruit was thoroughly examined. Apart from calyx injury there was little or no difference in the appearance and quality of treated and untreated fruit. Fungal decay was more prevalent in fruit which had been immersed in water or acid; but in no case was it of serious consequence. Untreated fruit was superior, in that there was no calyx injury or fungal decay, but its general appearance was inferior owing to the presence of visible spray residue. Results of the detailed count are shown in Table II.

Table II.

Treatment.	Fungal Decay.	Calyx Injury.
Untreated	Nil	Nil
Washed in water	6 per cent.	Nil
Washed in ½ per cent. Hydrochloric acid	6 per cent.	32 per cent.*
Washed in 1 per cent. Hydrochloric acid	8 per cent.	41 per cent.*

*High percentage of calyx injury due to failure of water supply and consequent rinsing facilities.

Practical Application.

The results of the test indicate the value of this method in removal of spray residue, and it is hoped that growers and packing sheds will give the method a trial during the forthcoming export season.

In the United States of America machines have been developed for this process. One type sprays the fruit with hydrochloric acid solution as it passes through the spray chamber, rinsing the fruit later with clear water, and drying it with a forced draught of air. Another type floats the fruit directly through the solution, spraying from overhead nozzles at the same time.

For the average grower and smaller packing sheds, no such elaborate equipment is necessary, the main requisite being a plentiful supply of water. Two wooden casks may be used, one for the acid solution, and the other for rinsing; casks are obtainable which will accommodate comfortably a case of fruit. If possible, a continuous stream of water should run through the rinsing bath, or if this cannot be done, the rinse water should be changed frequently. It is computed that two to three gallons of water is necessary for each bushel of fruit to be rinsed, but even more than this quantity could be used with advantage. The acid bath will gradually lose strength, and will eventually require replenishing. Authorities state that the acid solution should be changed after treatment of about 1,000 bushels of fruit per 100 gallons of solution. One gallon of commercial hydrochloric acid (33 per cent.) in 64 gallons of water will give a 1 per cent. solution. The cased fruit should be plunged up and down in this solution for one to two minutes, drained for a few minutes, and then rinsed thoroughly in clean running water. The rinsing is best completed by directing a jet of water on to the fruit in the case.

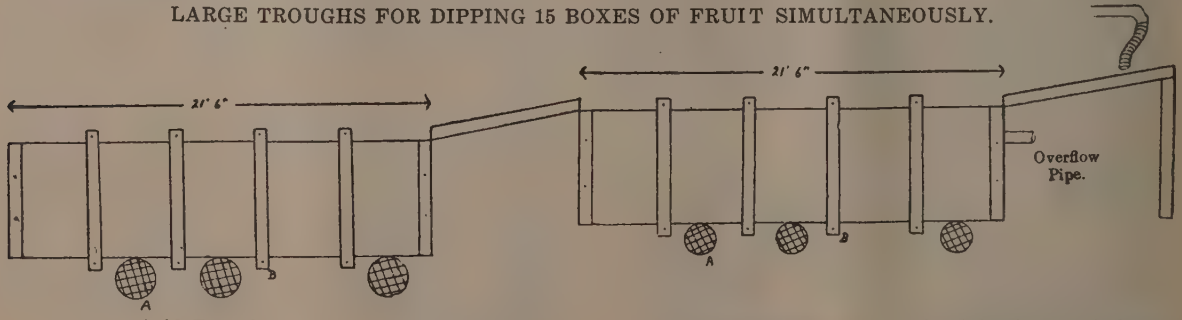
A simple equipment for dealing with larger quantities of fruit is described in Bulletin 63 of the South African Department of Agriculture, and consists essentially of two wooden troughs, one for holding acid solution and the other for water. The two troughs are placed end to end with one sloping draining board between them, and another at the end of the water trough. The troughs are a little wider than the length of the fruit boxes in which he fruit is to be dipped, about 20 inches deep, and about 12 inches longer than the combined length of the boxes, placed side by side, which it is desired to dip simultaneously. The boxes of fruit are floated through the acid trough, on to the central draining board, through the rinsing trough (which has a continuous flow of water running through it), and are finally drenched with a hose whilst on the end draining board.

Complete drying of the fruit does not seem to be necessary, and if each fruit is given a quick single shake before wrapping and packing, the wrapping paper will readily absorb any residual moisture.

Where there is a limited supply of water for rinsing purposes, the fruit should be dipped for half a minute in a third trough containing water, to which slaked lime has been added at the rate of 2 lb. to 80 gallons of water. The purpose of this third bath is to neutralise any residual acid. No further rinsing should follow the treatment in lime water. In all cases, fruit should be submitted to the acid treatment immediately after picking, otherwise wax develops on the skin and impedes the solvent action of the acid.

It is considered that this treatment can be applied advantageously by many growers, and will prove far less costly and more effective than hand-wiping. The Victorian Department of Agriculture will be glad to co-operate with growers or packing sheds desirous of giving the method a trial, and to supply further details which it has not been possible to include in this article.—"Journal of Agriculture," Victoria.

LARGE TROUGHS FOR DIPPING 15 BOXES OF FRUIT SIMULTANEOUSLY.



Acid Trough. Draining Board. 4ft. long. Water Trough. Draining Board 6ft. long. Water Tap with short Hose.

A.—Transverse log or plank to raise trough from ground.

B.—Batten to strengthen trough. One transverse bolt connects the batten of one side with that of the opposite side of the trough both at the top and at the bottom.

Australian Apple and Pear Export Council.

Important Meeting at Melbourne.

Advertising Overseas—Uniform Nomenclature—Overseas Transport and Marketing—Freight on Fruit—Empire Preference—The Thrips Menace.

Strong Objection Taken to Shipping Tasmanian Fruit via Melbourne.

A MEETING of the Executive of the Australian Apple and Pear Export Council was held at the Board Room, Commercial Travellers' Association, Melbourne, on January 6.

There were present:—Messrs. J. B. Mills (Chairman), who was also proxy for the West Australian Fruit Shippers; H. G. Colombie, representing the South Australian Fruit Marketing Association; G. W. Brown, Victorian Fruit Marketing Association and proxy for N.S.W. and W.A. growers; B. J. Pearsall and W. H. Calvert, M.L.C. (Tasmanian State Fruit Advisory Board); E. Ross (Tasmanian Fruit Shippers); C. G. Parnell (Committee of Direction of Fruit Marketing, Brisbane), and the Secretary, R. E. Boardman. Others in attendance included Mr. A. J. Honey (Secretary, Tasmanian State Fruit Advisory Board); J. M. Ward (Superintendent of Horticulture, Victoria); H. Thomson (Department of Markets). An apology from Mr. J. P. Piggott, through illness, was received.

It was decided to record a minute of appreciation of the late Mr. Griffeth, and to send a letter of sympathy to the widow and family.

Advertising Fund.—A letter was read from the Markets Department agreeing to collect a levy of ½d. a bushel on all Apples and Pears exported, the proceeds to be used for advertising purposes. Two half cases or three trays would count as a bushel.

There was a discussion as to whether the levy should be ½d. or ⅝ths of a penny.

Mr. Thomson (Markets Department), stated that the levy would be collected as an inspection fee. The Advertising Committee dealt only with advertising in Great Britain.

It was decided on the motion of Messrs. Colombie and Ross—

"That this Council concurs with the draft regulation, as presented by Mr. Thomson (Markets Department) by which all Apples and Pears submitted for export from the Commonwealth shall be subject to the levy of ⅝ths of a penny per bushel. Levies on fruit other than to U.K. to be ear-marked by this Council for advertising in the country of destination."

Weight of Fruit in Cases.—A letter was read from the Markets Department stating that complaints had been received from the U.K. of short weight of Australian Apples. In some instances the weight was only 36 lb. nett, whereas in similar cases from other places the weight was 46 lbs.

In the discussion which followed it was stated that the size or number of fruit should be sufficient: cases varied in weight; it was impracticable to mark nett weight, as weight was frequently lost on the journey. Any slack packing last season was probably due to the change over to the Canadian type case, in the packing of which many growers were unfamiliar. It was decided on the motion of Messrs. Calvert and Brown that the present case markings were sufficient.

Uniform Nomenclature and Abbreviations for Branding.—The Secretary reported that the list of uniform names of varieties as adopted at the recent Council meeting would not be gazetted this season as the list was deemed to be incomplete. Mr. Honey, on behalf of the Tasmanian State Fruit Advisory Board, submitted a list of varieties embodying those approved by the Council, together with a list of abbreviations for branding: (published in "Fruit World Annual."—Ed.). The list was adopted. In the discussion, Mr. Ward stated that the variety listed as "Geeveston Fanny" was identical with the variety already known as "Fanny" in America. Regarding the Pear "Vicar of Winkfield," the opinion was expressed that this was identical with "Napoleon," and that the last mentioned name should be deleted. As the opinion was held by some that the varieties were distinct it was decided to refer these matters back to the Tasmanian Advisory Board.

The West Australian Fruitgrowers' Association wrote requesting that the name "Stayman Winesap" be altered to Winesap to agree with the American naming. Mr. Ward stated that these two varieties were entirely distinct; it was doubted if the American "Winesap" was grown commercially in Australia.

A resolution was carried that the W.A. Fruitgrowers' Association be written to in these terms; if in that State the American "Winesap" was grown, the variety could be shipped under that name. Meanwhile, it was thought that there could be no objection to the abbreviation "STY" when shipping the "Stayman Winesap."

It was decided on the motion of Messrs. Pearsall and Calvert to approve of the schedule, minus the queried names, and to send on the list of uniform names and abbreviations to the Markets Department for gazettal.

Delegation for England.—The Secretary tabled a file of correspondence on this subject. Some States thought the delegation should go this season, others recommended that it be deferred.

A letter was read from the Empire Marketing Board withdrawing its offer to pay the expenses of one delegate.

Mr. Calvert moved that the sending of the delegation be deferred for a year. Mr. Colombie seconded on behalf of South Australia.

Mr. Pearsall advocated the sending of the delgation this season to attend to details connected with the forming of a Committee of Agents in U.K.; to make further arrangements for advertising Australian fruit; to investigate the fruit tree stock and cold storage experiments. He believed that if requested, the Empire Marketing Board would reconsider its decision. He moved as an amendment that the matter be deferred for a month and referred to the States for finality. Mr. Brown seconded the amendment.

Mr. Ross said Tasmanian shippers did not favor the delegation. A full meeting of the Council should deal with this matter. No programme had been drawn up defining the lines on which the delegation should secure information.

On putting the amendment it was lost. The original motion was put and carried.

Overseas Committee of Agents.—Correspondence from the several States was presented to the meeting. Names of approved receivers in U.K. were given. It was thought by members that the lists so far submitted were incomplete.

Mr. Colombie dealt in detail with the subject and pointed out certain difficulties in the way of appointing a Committee of Reicevers in U.K.—desirable as the project was. The views of the traders overseas should be secured.

In the discussion it was stated that Victoria had adopted the principle of limiting the number of shippers in that State. It was thought that the commencement would need to be made in Australia to secure a reduction in the shippers from Australia and a reduction of the receivers in U.K.

On the motion of Messrs. Colombie and Brown, two resolutions were carried, as follows:—

"That it be a recommendation from this Council to all State organisations to take whatever steps are necessary to ensure that the present number of exporters of Apples and Pears overseas—at present more than adequate—shall not be increased unless such State organisations give their approval to such additions."

"That it be a recommendation from this Council to all State organisations to take whatever steps are necessary to ensure that the present number of overseas receivers of Apples and Pears from Australia—at present more than adequate—shall not be increased unless such receivers have received the approval of State organisations."

* * * * *

It was decided to ask the Tasmanian State Fruit Board for a full list of the present receivers of Tasmanian fruit in U.K.

Refrigeration and Transport.—The Tasmanian State Fruit Board wrote approving of the proposal to obtain definite information from growers regarding cultural conditions, temperatures at picking time, etc., and requesting that the Council for Scientific and Industrial Research be requested to draw up a questionnaire for submission to growers.

The Chairman stated that the Victorian Fruit Marketing Association had drawn up a suitable questionnaire, and it was decided to furnish a copy to Tasmania.

Freight on Fruit.—Letters were read from Tasmania and Western Australia stating that in view of the rationalisation system, also reduction in prices of wages, coal, etc., the freight on export fruit should be reduced as early as possible; the approach should be made now to shipping companies to prepare for the new contract next June.

On the motion of Messrs. Colombie and Pearsall it was decided—

"That this Council, whilst recognising that shipowners have not received the beneficial reductions in cost that were anticipated from the creation of the Australian Overseas Transport Association, submits that present values overseas are so low as to endanger the continued existence of the fruit export trade; and requests that with a view to the maintenance of the fruit industry the Overseas Shipping Representatives' Association agree to a reduction of 20 per cent. on the existing rate."

Empire Preference.—A letter was received from Messrs. C. H. Smith and Company, Launceston, urging that in view of the impetus to Empire reciprocity because of the British elections, an approach should be made through the proper authorities for the securing of the months of April, May and June as an exclusive period in U.K. for Empire fruit.

A suggestion was made favoring a well informed representative of the fruit industry being in attendance at Ottawa at the Imperial Economic Conference, to guide the Australian Government delegation on technical matters relating to the fruit industry.

Mr. Colombie read a paper he had prepared dealing with this subject and the effect of tariffs generally on Australian primary industries.

The principles of this paper were endorsed by the Executive, and it was decided to send a copy, with the endorsement of the Executive, to the Prime Minister, also to Dr. Earle Page.

It was decided on the motion of Messrs. Pearsall and Calvert, that a sub-committee consisting of the Chairman, Mr. Colombie and Mr. Brown, be appointed to interview the Secretary of the Markets Department (Mr. Mulvany), to obtain advice as to the methods for preparing the case for the fruit industry.

Advertising.—The Secretary reported having attended a meeting of the Australian Overseas Trade Publicity Committee. This Committee consisted of representatives of the canned fruits, dried fruits, dairy produce, egg export and fresh fruit export industries, together with Mr. Mulvany (Markets Department). The London representative was Mr. A. E. Hyland. It was not necessary that the full amount of the levy be handed over to this advertising committee—a portion could be retained for special State advertising, as for instance, assisting with the cost of printing fruit wrappers; for administration expenses and for other purposes decided upon by the Council or, for example, assisting in the expenses of the proposed delegation. When moneys were handed over to this central committee, however, the advertising was definitely on behalf of the Australian primary industries concerned, without special reference to the individual States.

The Secretary tabled a file of correspondence from the several States on the subject of advertising.

Mr. Ross said there was a strong feeling in Tasmania that the money raised for advertising should be used for that purpose alone. He did not think a portion should be used for the purpose of sending the proposed delegation to England.

It was decided on the motion of Messrs. Ross and Brown that up to 1/16th of 1d. of the amount collected for advertising be held back for Empire Preference or other propaganda purposes. If not used for that purpose the money to be used for advertising alone in 1933.

Mr. Pearsall moved, Mr. Calvert seconded, that the money raised by levy on fruit exported to Eastern countries be held in trust for advertising in those countries.—Carried.

Regarding fruit exported to the Continent, it was pointed out that the British Advertising Committee did not do any advertising on the Continent. Mr. Colombie stated that brokers in some of the large continental centres were carrying on an "Eat More Fruit" campaign.

It was decided on the motion of Messrs. Colombie and Calvert, that a sub-committee be formed to enquire into the advertising of Australian fruit on the Continent, and that in the meantime the money raised by means of levy on Apples and Pears exported to the Continent be held in trust for advertising on the Continent. Messrs. Mills, Colombie, and the Secretary were appointed as a sub-committee to attend to this matter.

With regard to the actual advertising in Great Britain, the Secretary reported that the Central Committee would welcome suggestions from any State. It was thought,

however, that it would be advisable for the work to proceed on the same lines as previously for the coming season; progress reports to be sent periodically to members of the Council and State Associations.

Mr. Pearsall moved, Mr. Calvert seconded, that where any State desired special advertising (as for instance the printing of fruit wrappers), an estimate of the sum required be submitted to the Executive.—Carried.

Regarding the continuance of the contribution of ½d. per case by receivers in Britain of Australian fruit, a copy of the cable sent to Mr. Greenwood, National Federation of Fruit and Potato Trades' Association, was read.

Consolidated Charges.—Mr. Honey, on behalf of the Tasmanian State Fruit Advisory Board, requested that steps be taken to secure a reduction of the consolidated charges on fruit entering Britain: these charges by brokers and salesmen varied from 1/- to 1/4 per case. He produced copies of correspondence with Tasmanian representatives of overseas firms, wherein it was promised that the request for a reduction of consolidated charges was being made to the principals in Britain.

A suggestion that this matter be referred to the State Associations for attention was negatived, and it was decided on the motion of Messrs. Brown and Pearsall to write to the Fruit Brokers' Federation of Great Britain and to the National Federation of Fruit and Potato Trades requesting that in view of the necessity for the reduction of Australian fruit producers' costs the members of these organisations be urged to give favorable consideration to the reduction of consolidated charges.

Sales Tax and Primage.—Letters were received from Tasmania and Western Australia regarding Sales Tax on requisites needed by primary producers, also Sales Tax and primage on growers' requisites subsequently re-exported.

It was decided on the motion of the Chairman (on behalf of the W.A. Shippers) seconded by Mr. Brown—

> "That an approach be made to the Federal Government for the remission of the Sales Tax and primage on growers' requisites subsequently to be re-exported."

Letters were received from the Department of Markets regarding fruit for the Argentine, Singapore and Netherlands East Indies; also from Capt. W. J. Wade, regarding the advantages of the Port of Manchester.

Rate of Exchange.—On the motion of Messrs. Pearsall and Calvert, it was decided—

> "That this Executive meeting of the Australian Apple and Pear Export Council is definitely opposed to any Governmental or political interference with the rate of exchange."

A copy of the resolution to be sent to the Prime Minister.

Mr. H. G. Colombie reported the text of his correspondence with Chambers of Commerce on this subject.

Tasmanian Fruit Shipped via Victoria.—Mr. Ross reported that a new and unsatisfactory feature had recently been introduced into the fruit shipping business. A firm not regularly connected with fruit shipping was obtaining fruit in Tasmania and bringing same to Melbourne for shipment overseas. This was seriously upsetting both Tasmanian and mainland business. To get accurate forecasts of exports in order to engage shipping space Tasmanian growers had to apply for space by November 30, and they had till December 30 to make alterations—thus enabling reliable forecasts to be made. This new and irregular procedure left Tasmanian and mainland growers and shippers in an insecure position—accurate forecasts were impossible. In a heavy shipping year Tasmania was short of space, yet shipping companies were apparently giving Victoria sufficient space to take surplus fruit from Tasmania.

Mr. Mills said the Victorian Fruit Exporters' Handling Committee had lodged a vigorous protest. Should this irregular practice be permitted to continue, there would be chaos. On a full year, Victoria found it difficult to secure sufficient shipping space, then if on top of that there were overflow supplies from Tasmania, it would lead to confusion.

Mr. Pearsall and Mr. Calvert agreed that this new intrusion was a very dangerous procedure; it was breaking down the system of the Australian Overseas Transport Association.

Mr. Colombie said South Australia and Western Australia would also be sufferers. In the first place there was the additional handling which was not good for fruit. This extra-handled fruit would damage the reputation of Australian fruit on overseas markets. Secondly, it was unfair that South Australia and Western Australia would, in these new circumstances, be liable to have their space requirements curtailed because of Tasmanian irregular surplus being shipped from Victoria. Ships were sent to Port Huon, Tasmania, to save the extra handling involved in getting the fruit shipped from Hobart, yet here was an instance where an extra handling was being quite unnecessarily introduced.

On the motion of Messrs. Calvert and Brown, it was unanimously decided—

> "That this Council urges upon the shipping companies the great necessity of stipulating that space for fruit allotted to any State shall only be used for fruit produced within that State, or which ordinarily has been shipped from that State. This is imperative, having regard to forecasting and eventual filling of space, and to avoid complications which will destroy the methods at present in existence which have proved satisfactory to all interests concerned—growers, shippers and shipowners."

It was decided to point out in the covering letter to explain that the words "on which has ordinarily been shipped from that State" relate only to fruit grown in New South Wales or South Australia—adjacent to the Victorian border.

Case Specifications.—Mr. Colombie introduced the subject of uniform case specifications for Australia. He said that the Victorian Fruit Marketing Association had consulted hardwood and softwood millers regarding the thicknesses of timber for cases. Softwood millers had agreed on uniform specifications: the matter was not finalised with hardwood millers. The idea was to get uniform outside measurements of cases.

On the motion of Messrs. Brown and Pearsall, it was decided that when the V.F.M.A. had finalised the subject of case timber measurements, copies be sent to the several State organisations for their comments.

The Thrips Menace.—Mr. Brown said that thrips had destroyed much of the crop on the mainland in 1926-7 and again this season. Next year a heavy crop was possible. The lack of continuity of supply was serious for the industry as a whole—including every State. The State Department of Agriculture and the Council for Scientific and Industrial Research were at work on this subject. The harmful insect was thrips imaginis, which was a native pest. The C.S.I.R. needed an additional £1,200 a year for three years to pursue its investigations: it was desired to add a horticulturist and a chemist to the investigational Committee.

Mr. Pearsall said that some damage had been caused in Tasmania by thrips. It was decided on the motion of Messrs. Colombie and Brown—

"That this Council approves of each State finding a yearly sum of money towards the £1,200 per annum required by the Council for Scientific and Industrial Research for a fuller investigation into the thrips damage—with a view to approaching the Federal and State authorities for the balance of the money required: the several States to advise the Secretary of this Council at the earliest opportunity of the amount of money they agree to contribute yearly for three years."

The Secretary was instructed to send a copy of this resolution to the State Associations.

At the instance of Mr. Pearsall, a vote of thanks was tendered to the Chairman.

APPLE PRODUCTION AND EXPORT.

1931/32 Season.

THE Minister for Markets (Mr. Hawker) states that the latest information received indicates that the production of Apples in Australia this season will be approximately 7,100,000 cases, of which quantity about 3,780,000 cases will be exported. This represents an increase in production of 210,000 cases, and an increase in export of over 500,000 cases as compared with last year.

In order to stimulate the demand for Australian Apples and Pears, a very active publicity campaign will be carried out in Great Britain this year by the Director of Australian Trade Publicity (Mr. A. E. Hyland). The expense of this campaign will be defrayed by the Australian Apple and Pear Export Council from the levy of ½d. per case of Apples and Pears, which will be charged on all Apples and Pears submitted for export this season.

The following table shows the production last year and the estimated production during 1931/32, together with the export figures for the same periods:—

	Production.		Export.	
	1930-31. Cases.	1931-32. Cases.	1930-31. Cases.	1931-32. Cases.
Tasmania	3,500,000	4,250,000	2,309,238	2,750,000
Victoria	1,500,000	875,000	361,234	200,000
S. Australia ..	250,000	650,000	28,230	300,000
W. Australia ..	800,000	800,000	473,260	500,000
N.S.W.	650,000	400,000	51,416	20,000
Queensland	183,000	120,000	3,134	10,000
Totals	6,883,000	7,095,000	3,226,512	3,782,000

FRUIT CROPS IN U.S.A.

The Apple crop of U.S.A. is set down at 222,707,000 bushels, which is about 36 per cent. larger than the production of 1930, and nearly 28 per cent. larger than the average for the preceding five years.

With the certainty of one of the largest crops in recent years, and low prices prevailing for fresh fruit and cider stock, there is evidence of close culling and abandonment of low grade fruit, which has resulted in the reduction of the forecast of the commercial crop to about 113 million bushels. This, however, is 16 per cent. larger than the average for the five year period 1925-1929.

Pears.

The estimated crop is set down as 24,054,000 bushels, or about 13 per cent. less than the 1930 production, but nearly 9 per cent. larger than the average of the preceding five years.

Mr. E. E. Kaufman, Senior Agricultural Statistician, California, reported on November 1, that the final pack of Peaches in California amounted to 8,500,000 cases, with heavy wastage on account of poor quality and poor market conditions.

Water shortage, the vine leaf hopper, and excessive temperatures cut the Grape crop to about 60 per cent. of the 1930 production. Other crops in which more or less wastage resulted were Cherries, Apricots, and Pears. The Prune crop this year is nearly 100,000 tons less than in 1930, with rather poor quality indicated.

Fruit Shipments
United Kingdom and the Continent

W. D. PEACOCK
& CO.
London Fruit Exchange, Spitalfields, London, E.1.
AND HOBART, TASMANIA
Solicit Consignments
The High Standing and Long Experience of this Firm is a Guarantee that the Best Interests of Consignors will be conserved.

F. W. Vear PTY. LTD.
Fruit & Vegetable Salesmen
Commission Agents
28 New Wholesale Fruit Market, Melbourne, Victoria
Highest Market Rates Assured
Prompt Settlements

RIDLEY & HOULDING
Covent Garden Market
LONDON
Specialists in Australian Fruit.
Solicit consignments of Apples, Pears, Etc.
Our record of over 30 years' standing in the handling of Australian fruit, with satisfactory results, is a recommendation for growers to ship their fruit to our house.
Representatives—
International Fruit & Mercantile Company Ltd., Melb., Vic., Australia; and A. J. Walshe & Co., Hobart, Tasmania.

ORANGE APHIS.

Sometimes Attacked by Aphelinus Parasite.

SOME LITTLE TIME AGO hopes were held out that the destructive Orange aphis might be exterminated or controlled by the parasite, Aphelinus mali, which has cleaned up the woolly aphis of the Apples. However, the W.A. Government Entomologist, Mr. L. J. Newman, now advises under date December 21, as follows:—

"Unfortunately, up to date, we have not found any evidence this year of the parasite attacking the Orange aphis. The several instances which we found last year, gave hope that this parasite might prove to be a successful natural check to Orange aphis. We have therefore come to the conclusion that the casual attacks made by Aphelinus mali on the citrus black aphis, are more or less accidental, and not to be relied upon as a controlling factor of economic importance."

Pear Packing.

Important Seasonable Hints.

A packing chart specially designed for W.B.C. Pears, in the 8 in. standard Pear case (18 in. long, 11½ in. wide, 8 in. deep—inside measurements), has been prepared by Mr. Basil P. Krone, fruit packing instructor, Victorian Department of Agriculture, as follows:—

Size.	Pack.	Layer.	Layers.	Total.	Remarks.
2¾in.	3-3	5 x 5	5	150	Pack more LOOSELY than usual.
2¼in.	3-3	6 x 5	4	132x	Normal pack.
2¾in.	3-3	5 x 5	4	120x	Normal pack.
2¾in.	3-3	5 x 4	4	108x	Normal pack.
2¾in.	3-3	4 x 4	4	96x	Normal pack.
2¾in.	3-3	4 x 3	4	84x	Pack more LOOSELY than usual.
3in.	3-2	5 x 4	3	68	Pack more TIGHTLY than usual.
3¼in.	3-2	4 x 4	3	60	Normal pack.

NOTE.—The counts marked (x) are the most suitable for export. The count, and not the diameter, should be branded on one end of each case.

Salient Points for Export.

Harvesting.

Packing Pears with a bulge of 1½ to 2 in. above the top of the case before lidding.

If lids are in two pieces, keep them as close together as possible to prevent cutting the fruit.

Wood wool or corrugated cardboard should be used at top, bottom, and sides of the case when packing.

In all instances, the W.B.C. Pear should be pre-cooled before export.

Wire-tie all cases to prevent breakages and ullage in transit.

Harvest immediately the following combination of points is noticeable:—

1. The change of the ground color of the skin from dark green to pale green.
2. The changing of the dots or lenticels from a light to a dark or corky appearance.
3. Juice immediately rushes to the surface if a slice is cut from the Pear; it remains dry, if immature.
4. The well-filled-out appearance of the Pear.
5. The ease with which the fruit can be separated from the spurs when harvesting.

Pre-Cooling.

1. Pears should remain in cool store at least three days before packing. The temperature should be 29-31 deg. F.
2. Temperature of truck before loading should be 50-56 deg. F.
3. Core temperature of Pears at loading should be 30-35 deg. F.

If the above is followed closely, the temperature of the truck upon arrival at the boat should be 40-45 deg. F., with the core temperature of the Pears between 35 deg. and 40 deg. F.

On no account should the temperature of W.B.C. Pears on arrival at the boat for export be more than 40 deg. F.

Machine grading of Pears can be recommended if the operation is carried out as soon as the fruit is harvested and before cool storage.

On no account should light skinned varieties be machine graded while exceptionally cold.

PEAR SHIPMENTS.

The first shipment of Pears for Great Britain from Victoria left by the R.M.S. "Mongolia" on January 26. It is anticipated that 100,000 cases of Pears will be shipped from Victoria this season. The Goulburn Valley is expected to supply about 30,000 cases, mostly Williams. The better shipping varieties are unfortunately not available in quantities this year owing to the thrip devastations.

Effect of the Thrips.

A man took a clock to a pawnbroker in an effort to "raise the wind."

"Is it an eight-day clock?" asked the pawnbroker.

"I don't know," replied the man. "I've never had it out more than four days at a time!"

Classified Advertisments.

APRICOT, Fruit Trees, Trevatt, budded from selected heavy bearing trees.—Weare's Nurseries, Griffith, N.S.W.

98.74% CLEAN FRUIT

The highest percentage recorded in the recent Government experiments for the control of Codlin Moth in Apples and Pears (details in October, 1931, Victorian Department of Agriculture Journal)

WAS OBTAINED WITH

SHELL WHITESPRAY

The safest and most effective white-oil spray on the market.

THE SHELL COMPANY LIMITED

S.O.17.

Victorian Fruit Marketing Association

THE monthly meeting of the Victorian Fruit Marketing Association was held at the Board Room, Commercial Travellers' Association, Melbourne, on Friday, January 22, 1932.

There were present: Messrs. J. W. Bailey, W. H. Carne, G. W. Brown, H. Ford, K. Eagle, W. P. Hutchinson, H. G. Colombie, F. R. Mellor, J. B. Mills, A. S. Harrison, C. J. Parnham, and the Secretary, R. E. Boardman. Others in attendance were Messrs. J. M. Ward (Superintendent of Horticulture), E. E. Meeking (Export Superintendent), and A. G. Whitlam (Lecturer in Marketing, Melbourne University). Apologies were received from Messrs. Lawford, Webb and Jost.

Death of Mr. C. M. Griffeth.—The past president (Mr. H. G. Colombie) took the chair at the opening of the meeting and referred in sympathetic terms to the untimely death of the President, Mr. C. M. Griffeth. The action of sending a wreath and writing a letter of condolence to the widow and family was endorsed, all members standing in silence.

The minutes of the previous meeting were read and confirmed.

Mr. Colombie stated that according to the constitution it would be necessary, if electing a new President, for nomination papers to be sent to all members and for an election to be held a month later.

Mr. Mellor moved that Mr. J. W. Bailey be appointed Acting President for the remainder of the financial year. Mr. Hutchinson seconded.—Carried unanimously. Mr. Bailey thanked members for their confidence.

The Thrips Menace.—Letters were received from Messrs. W. J. Cox, Pomonal and J. Bolton, Portland, giving experiences re thrips. Decided to send copies of these letters on to Mr. Evans, Entomologist, Council for Scientific and Industrial Research.

With regard to the proposed relief for orchardists, it was reported that the death of the President had delayed the plans. It was decided to ask Mr. Hutchinson to arrange with the Minister for Public Works, the Hon. J. P. Jones, M.L.C., for an interview with the Committee to discuss details. Mr. Bailey was added to the Committee in place of the late Mr. Griffeth.

Mr. Colombie reported that the Apple and Pear Export Council had decided to approach its constituent interstate members for a grant towards the £1,200 needed by the C.S.I.R. for three years to add a horticuturist and a chemist to the Research Staff. He then moved—

"That because of the recurrent serious losses suffered by fruitgrowers on account of the thrips scourge, this Association to call a meeting of business firms, financial institutions, fruitgrowers' associations, and all interested in the industry to meet representatives of the Council for Scientific and Industrial Research, Agricultural Department, in order to formulate plans for supporting the intensified thrips research programme of The C.S.I.R., namely the appointment of a horticulturist and a chemist to the research staff for which the sum of £1,200 a year for three years is required."

Mr. Brown seconded. The subject of thrips research had to be approached from an Australian-wide viewpoint.

A Committee was formed to make arrangements for the meeting, as follows:—Messrs. Bailey, Colombie, Mills, Brown, Hutchinson and the Secretary. The Committee meeting to be held at the Commercial Travellers' Association on Wednesday, February 3, at 11 a.m.

It was also decided on the motion of Messrs. Mellor and Colombie, to advise the interstate associations of the plans being executed here.

That the V.F.M.A. contribute £50 to the thrips research fund.—Motion, Messrs. Mellor and Carne.

Mr. Carne announced that, subject to the approval of the other members, the Gippsland Fruit Marketing Association would contribute £10 to the Thrips Research fund.

The motion was carried.

Mr. J. J. Hall, agricultural editor of the "Sun," stated a unified programme for research into pasture improvement was meeting with success. He suggested that a similar united programme for thrips research would doubtless be supported. The Australian Dairy Council had laid down a 5-10 year programme for pasture improvement. Of the £2,000 needed the first year, no less than £1,100 was subscribed in the room when a meeting of business interests connected with the dairy industry was held—and the Pasture Improvement League was launched.

Mr. Hall was thanked for the information supplied.

It was decided to invite to the meeting manufacturers of orchard implements, spray materials, case makers, suppliers of manures, graders, motor trucks, wire-tying and orchard requisites, etc., also banks, insurance companies, financial institutions, shipping companies, wholesale and retail fruit distributors' associations, fruitgrowers' associations, canning firms, the Agricultural Department, Council for Scientific and Industrial Research and all interested in the fruit industry.

Case Timber Specifications.—Mr. Bailey submitted specifications for timber for dump cases as follows:—

Specification of Dump Fruit Cases.

Internal dimensions of case:
18 in. long x 14¼ in. deep x 8.2/3 in. wide.

Ends: Each one piece.
14¼ in. long x 8⅝ in. wide x ⅝ in. thick.
N.B.—In practice ends are cut 8⅝ in. wide to facilitate measurements, the difference between this and the statutory measurement of 8.2/3 in. being only .09 in.

Sides: (If two piece) each four pieces.
19½ in. long x 7 in. wide x 5/16 in. thick.
(If three piece) each six pieces.
19½ in. long x 4⅝ in. wide x 5/16 in. thick.

Bottoms: Each two pieces.
19½ in. long x 4¼ in. wide x 5/16 in. thick.

Lid: One piece.
19½ in. long x 8⅛ in. wide x ¼ in. thick.
N.B.—The above measurements have been settled to suit the ideas of the majority of buyers, and the widths of the slats have been determined with a view to eliminating any crack wider than ¼ in.

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Make this a real "Goodman" season! — plant Goodman's Reliable Trees and have bumper crops of first-class fruit season after season. All varieties available —clean, healthy, well-grown, true to label. Orders promptly filled —reliable trees sent to any part of Australia.

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FRUIT TREES

Send for Catalogue and Price List.

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Picnic Point Nurseries, BAIRNSDALE, Victoria. Australia.

It will be noted that the thickness of the top has been fixed at ¼ in. instead of 5/16 in., as the little extra resiliency assists in lidding the case without damage to the fruit.

General:

Timber to be freshly and smoothly sawn, and all pieces to be of uniform thickness.

Ends to be docked squarely and without torn grain leaving ragged splinters.

Surfaces to be dressed as follows:—

(As provided by particular contract.)

Bundling: Timber to be bundled as follows:—

Ends: 20 pieces equals 10 cases.

Sides: 2-piece, 40 pieces, equals 10 cases.
3-piece, 60 pieces, equals 10 cases.

Bottoms: 40 pieces, equals 20 cases.

Tops: 20 pieces, equals 20 cases.

The Secretary reported that these specifications had met with the approval of Mr. Esmond Russell. A reply was awaited from the Hardwood Millers' Association.

With regard to local Pinus insignis, used for making dump cases, it was decided to submit the foregoing specifications to the Softwood Sawmillers' Association.

Meeting at Drouin.—Mr. C. P. Nobelius wrote in terms of appreciation of the V.F.M.A., and requesting another meeting at Drouin on the lines of the meeting held last year. Local growers desired to join the V.F.M.A. The Secretary reported being in touch with the Superintendent of Horticulture, and it was arranged for Mr. Strickland, M.Agr.Sc., to give an address on "The Pollination of Fruit Trees," Wednesday, March 2. Messrs. Bailey, Carne, Mellor and F. Thomas to represent the V.F.M.A. and give a report to date.

Tasmanian Fruit via Melbourne.—The Secretary read interchange of telegrams between Apple and Pear Export Council and the Overseas Shipping Representatives' Association, Sydney, objecting to the irregular Tasmanian consignments, not previously forecast, being transshipped at Melbourne.

Mr. Colombie stated this was a breach of Clause 5 of the agreement between fruit shippers and the shipowners. The new arrangement was disruptive and would lead to confusion should this practice be permitted. With Victoria having a full crop, it would be very harmful to all mainland as well as Tasmanian growers. On the motion of Messrs. Brown and Carne it was decided—

"That this Association associates itself with the Victorian Exporters' Handling Committee on the obtaining of legal advice on Clause 5 of the fruit shipping agreement."

It was further decided on the motion of Messrs. Ford and Mills—

"That this Association endorses the action taken by the Australian Fruit Council in regard to this matter."

Visit of Mr. W. M. Carne.—Mr. Ward reported that Mr. W. M. Carne, Plant Pathologist, Council for Scientific and Industrial Research, would be in Victoria during the latter part of February and an itinerary was being arranged with the Department of Agriculture. Mr. Carne was handling some very important research matters relating to bitter pit, cold storage and the transport of fruit. In order to take full advantage of Mr. Carne's visit it was decided to make the next meeting of the Executive on Thursday, February 25, at 2 p.m. Mr. Carne to address members at 3 p.m. That same morning, Mr. Carne would be meeting exporters and representatives of shipping companies to deal with details of overseas transport. The same evening there would be an illustrated lecture at the Department of Agriculture, 605 Flinders-street, by Mr. Carne.

The meeting then closed.

Removal of Spray Residue.—In reply to an enquiry, Mr. Ward stated it was cheaper and more efficient for Apples and Pears to be washed in a solution of hydrochloric acid instead of having the labor of wiping individual fruits.

Mr. Ward stated that British health authorities were observing Australian fruit closely, and it was quite necessary to fulfil the regulations.

(The method for washing and rinsing the fruit is described in detail in the "Journal of Agriculture," December, 1931, and the "Fruit World," February, 1932.)

DAN WUILLE-MUMFORD CUP.

The Dan Wuille-Mumford Cup for 1932 is being competed for at the Castlemaine and District Show in March. The cup is to be awarded for the best case of Apples packed and wrapped for export.

It is expected that entries will be received from Harcourt, Strathfieldsaye, Sutton Grange and the surrounding districts. This handsome cup is being exhibited in one of the leading shop windows in Castlemaine.

The winners of the cup presented in 1931 were Messrs. Edwards Bros., of Red Hill.

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ONE GROWER SAYS—

"The trees (750) arrived in excellent order and are of exceptional quality. Our local inspector said they were the best trees he had seen. You will get my order, about same number, for next year."

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TASMANIA.

Cygnet—Lower Wattle Grove—Ranelagh.

Splendid Apple Crops.

(By Our Travelling Representative.)

Cygnet.

THERE WILL BE GOOD CROPS throughout the Cygnet district, and many orchards are producing larger than last year. In Cygnet and the adjoining district of Lower Wattle Grove, many of the growers are using the spraying calendar laid down by Mr. Ben Watson, and have had splendid results. Berry growing has been carried out extensively at Cygnet, but the difficulty experienced last year in disposing of crops has disheartened many growers, and the berry orchards are in some instances neglected. One man who had two acres of Loganberries which would have produced about two tons of fruit, had the crop been gathered, left them to rot on the canes. This meant £100 dead loss to him, and like others, he will not trouble to produce berries in the future.

Mr. P. J. Clark will take between three and four thousand cases of Apples this year from nine acres, and another two thousand cases from five acres that he is renting. This will be better than last year's crop. Sturmers, Crabs, Alfristons, and Scarlets are grown, and the latter variety look particularly good.

Mr. G. A. Thorp, with sixteen acres of bearing orchard, has sprayed with Watson's formula and effected general improvement with trees and crop results. Last year he took off 6,500 cases, and the orchard will yield 1,000 cases more this year, according to his own estimate. The varieties grown are Sturmers, Crabs, Yorks, Jonathans, Five Crown, Scarlets, Dukes, Rome Beauties and Granny Smith. About 300 young trees of N.S.W. Granny Smith are coming along nicely. Mr. Thorp exports most of his fruit, and will try the Melbourne market this year.

Mr. Mat. Dillon's orchard is high up in the hills that overlook Cygnet, and part of the orchard is situated on very steep slopes that must make cultivation of the soil a very hard task. The soil, however, is good, and probably compensates for the extra labor involved. Mr. Dillon has fifteen acres bearing and two acres of young trees. Sturmers, Scarlets, Cleopatras and Alfriston are the chief varieties grown, and the expected yield this year will be about 5,000 cases.

Captain Cooper, down on the flat country has a mixed farm as well as an orchard, and finds the combination profitable. His eight acres of full bearing orchard, together with a light yield from young trees, will produce this year about 3,000 cases. Captain Cooper was attached to the staff of the late Sir John Monash during the Gallipoli campaign, and saw much active service. He takes a keen interest in returned soldier problems.

Mr. W. Merchant, at Deep Bay, Cygnet, has 16 acres of orchard in full bearing and three acres of young trees just beginning to produce. Twelve varieties of Apples are grown, with Sturmers occupying pride of place. This will be the best year Mr. Merchant has had and he expects to pick between five and six thousand cases of good clean fruit. This orchard bears every evidence of careful cultivation, and good spraying methods. He differs slightly from the programme laid down by Mr. Ben Watson, by cutting out bluestone in the early spray. He prefers lime sulphur, having found it more suitable during the first week in August.

Lower Wattle Grove.

The district of Lower Wattle Grove lies close to the bank of the Huon, near Cygnet. There are many fine orchards here, and one of the largest in the district is that of Messrs. Edgar Norris & Son, which comprises 50 acres, 40 of which are in full bearing, and will probably yield 20,000 bushels. The chief varieties grown are Cleopatra, Sturmer, and Democrats. The latter variety are favored, and over 2,000 of these trees have been planted. This orchard has yielded good crops for the past four years.

Mr. A. L. Bender has 20 acres planted with Yorks, Sturmers, Jonathans, Democrats, Scarlets, and a smaller area of other varieties. This orchard produced 6,500 bushels last year, and the estimated crop this year is 8,000 bushels. This is a splendid result when about six acres of young trees that have not yet reached the bearing stage, are included in the 20 acres. Mr. Bender sends most of his crop to the overseas markets.

Mr. Roy Griggs, who uses a very attractive label for his fruit (Goldfinch Brand), has a splendid orchard of 25 acres that is stocked with Democrats, Jonathans, Cleopatras, Sturmers, Rome Beauties and Australian Beauties. Last year this orchard produced 5,000 bushels, but that total will be exceeded this year, for a number of trees will arrive at the bearing stage that were small producers last year. Mr. Griggs has a commodious packing shed, and works his orchard in a businesslike way. His spraying methods are much the same as those carried out by other orchardists in the district and follow closely on the lines laid down by Mr. Watson, of Castle Forbes Bay.

A small orchard of six acres that bears evidence of careful working is that of Mr. F. H. Conlon. The Sturmers, Cleopatras, Scarlets, Democrats and Croftons look the picture of health and will yield splendidly this season. Mr. Conlon is making preparation for further planting of his land.

Mr. J. Norris treated his eighteen acre orchard with fowl manure, and found that the trees responded so well to this treatment that he is determined to continue with it if sufficient can be obtained. This will be difficult, as there is no poultry-farming of any importance in South-

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ern Tasmania, and orchardists only keep a few dozen fowls to supply eggs for table. Mr. Norris was advised to increase his own stock of fowls, and profit thereby.

The varieties grown are mainly Democrats, Granny Smith, Crabs, Alfriston, Sturmer and Jonathans.

Ranelagh.

Mr. R. Griggs, at Ranelagh, has a fine crop, which has been kept clean by using the Ben Watson formula, excepting for the late spray with atomic sulphur. Mr. Griggs uses mildew sulphur and flour in all the arsenic sprays. He expects to take off 10,000 cases from eighteen acres this year, which will be considerably better than last year's crop.

The chief varieties grown are Sturmer, Crabs, Scarlets, Democrats, Cleopatras, Granny Smiths, Jonathans and Worcester. When adverse reports were circulated about Alfristons for export, Mr. Griggs cut them out of the orchard. The demand for this variety now makes him regret cutting them out, and he will probably replant Alfriston. His three-acre orchard of young trees is coming on nicely and are a healthy-looking lot. Half of the crop is exported and half is sent to local markets. Mr. Griggs will probably try Melbourne market this year.

TASMANIAN FRUITGROWERS CONFER.

Important Matters Discussed.

THERE was a large attendance of representative growers of Southern Tasmania at Cygnet on Thursday, January 14, when the southern branches of the Agricultural Bureaux met in conference. Mr. N. B. Barnett presided.

Motions were agreed to requesting the Committee of Agents to eliminate the minimum charge on fruit shipments and to charge only the flat rate of 7½d.; that the levy of 1/16ths of a penny per case be made compulsory; that a protest be entered against excessive charges paid by Tasmanian growers for fruit inspection to the mainland States; that steps be taken to secure the abolition of the Sugar Agreement.

Advertising Overseas.—On a motion of Mr. Gordon Smith, it was decided that the distinctive name of the State on export fruit, rather than the general or collective name of Australia should be featured, and that the amount of levy collected in Tasmania should be retained for the advertising of Tasmanian fruit.

Other resolutions favored the collection of world statistics re Apple yields for broadcasting; a more comprehensive insurance policy on Apples exported; that no regulations be framed to eliminate any varieties from export; that interstate freights should be reduced by 20 per cent.

Thrips.—Moved by Mr. T. F. Portnell: "That the Department of Agriculture and the Executive of the Bureau take steps to investigate all possible means of preventing thrips getting into Tasmania, and further, that the Government and the State Fruit Advisory Board proceed to immediate action on their recommendation.—Carried.

SWAT!

"Do you think the radio will take the place of the country newspaper?"

"I doubt it," said the village storekeeper. "You can't very well swat flies with a radio set."

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THE "HARVEY" FRUIT GRADER is not an ordinary grader. It has many noteworthy features such as a specially designed sectional sizing device which can be adjusted to grade fruit in 1/32 in., 1/16 in., 1/8 in., 1/4 in., or any other size desired; bin trays equipped with springs to facilitate packing, etc. The use of this perfected grader permits the handling of flat varieties of fruit with the same ease and efficiency as fruit of normal shape. Fruit Growers should learn more about the Harvey Grader, as experience has proved that it has more than paid for its cost in one season in numerous instances by the manner in which it expedites packing, and the faultlessness of its operation.

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Thrips a Menacing Factor.

FRUIT CROP CONDITIONS are reported on by Mr. Geo. W. Wickens, W. Aust. Supt. of Horticulture, in the "Journal of Agriculture," W.A., as follows:—

The Thrips Menace.—From our experience this year, one cannot but think that in spite of all the best of growers can, and did, accomplish, in the way of preparing the trees to bear abundantly, their efforts would have been of no avail but for a hefty lump of good luck. Thrips, which have devastated the orchards of our fruit-growing friends in the Eastern States, arrived here just a few days too late to perform a similar act of destruction in Western Australia. It was so close that I must confess to a "goose-fleshy" feeling when I think of it, and I have no doubt there are many others in the industry who experience a catch in the breath when they contemplate what might have happened.

However, that hurdle has been safely negotiated, and no other obstacle having arisen up to date to prevent the trees from functioning as satisfactory producers, I will make a forecast that I believe will not be far astray when the actual returns are known in October next after the bulk of the fruit has been sold.

The average Apple crop for the past five seasons, 1927 to 1931 inclusive, has amounted, in round figures, to 725,000 bushels per annum, the highest yield in that period being in 1929 with 1,122,000 bushels and the lowest in 1928 with 409,000. In December of last year I estimated the Apple crop for 1931 at a minimum of 800,000 bushels, but results proved I was over-sanguine as the crop did not quite reach 750,000, though there is no doubt the long dry summer and failure of a lot of fruits to reach normal size accounted for most of the shortage.

My estimate for 1932 is 760,000 bushels. I consider this a conservative one, but I am influenced by the fact that the crop in the Mount Barker-Albany district is very heavy (the heaviest in my opinion ever produced in that part of the State), and if this summer proves as dry as last the fruit may be small. In addition to this, the crop in the Bunbury-Pemberton section is comprised largely of Cleopatras, which may develop "cork" to some extent and thus reduce the quantity available for sale. In the Southern district, Mount Barker-Albany, practically all varieties, excepting Romes, are fruiting heavily; in the South-West, Bunbury-Perberton, Cleopatras and Yates are heavy, Grannys about half a crop, Jonathans light, with a tendency to bunched fruits on terminals, Dunns nearly a failure, mainly on account of last season's over-crop; Romes and Nickajacks also nearly a failure, but in this instance thrip was the destroying agent.

Pears, from time of blooming to present date, have had a varied experience; in several orchards frost destroyed the Bartlett crop, and in all places the ordinary shedding of young fruits of all varieties has been more than usually severe. Still, allowing there will be less Bartletts this season, the crop as a whole will be heavier than last, particularly export varieties—Josephine, Winter Nelis, Comice, and Beurre Bosc. The Pear crop over the past five years has, in round figures, averaged annually 89,000 bushels, and my estimate for this season is 90,000.

The stone fruit crop as a whole will, I think, be lighter even than last year. "Early Newcastle Apricots fruited heavily, but all late varieties were on the light side. Japanese Plums were much lighter than last year, particularly Satsuma. English Plums are not largely grown in Western Australia, but the crop of these is about equal to last season. Peaches and Nectarines also are about the same as last year.

To summarise:—

Pip and Stone Fruits.

Kind of Fruit.	Production for Season 1930-31. Cases.	Estimated production for Season 1931-32. Cases.
Apples	749,449	760,000
Pears	80,684	90,000
Peaches	50,223	50,000
Nectarines	11,469	11,000
Apricots	43,840	40,000
Plums	57,956	45,000

The Grape crop will be about the same as last season, with the exception of Sultanas, which are heavier. Last season the production of fresh Grapes amounted to 56,699 cwts. of table Grapes: 50,133 cwts. of wine Grapes; and 190,883 cwts. of Grapes grown for drying purposes, making a total of 297,715 cwts. As stated above, it is estimated that the production in season 1931-32 will nearly correspond with that of 1930-31.

WESTERN AUSTRALIA.

Export of 650,000 Cases of Apples, Pears and Grapes.

According to telegraphed advices from Mr. G. Wickens, Superintendent of Horticulture for Western Australia, the quantities of fruit for export this season are as follows:—Apples, 570,000; Pears, 50,000; Grapes, 30,000.

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Dried Fruit Notes.

MID MURRAY AREAS.

Renmark (18/1/32).—The fourth irrigation commenced on December 30, just at a time when we most needed the water.

A heat wave of great severity was at its maximum at the time, and settlers, first on the roster, were eagerly looking forward to this irrigation. For a week the temperature ranged from 105 deg. to 117 deg., without a break, commencing on Christmas day and ending on New Year's Day. Up till that time this summer had been a particularly mild one, with vines and trees pushing out vigorous growth and showing a fine crop, but the excessive heat has caused a certain amount of scorching, which is likely to reduce the yield.

Vines having unprotected fruit on the westward and southern side fared worst, likewise vines of the Gordo variety having fruit near the ground sustained a fair amount of loss. The Voullaire method of growth control sample, it is only the first step, and still needs the individual effort for its success.

The annual general meeting of the Renmark Growers' Co-operative Distillery took place recently and showed the best balance sheet which has been presented for many years. The Chairman, Mr. D. T. Du Rieu pointed out that the financial position was due to the conservative policy of the board of directors, and that the institution wanted 2,500 tons of Gordos, which would be converted into wine with every possibility of it being disposed of at a reasonable return to growers. Although the position of spirit stocks was one of concern, he hoped that the next twelve months would see an improvement.

Empire Preference Needed.

A decided swing in favor of Empire Preference would greatly assist the wine and spirit market, as also would the Canadian Preference Treaty. This would reflect itself in Australia getting a bigger share of Great Britain's wine business.—"Nemo."

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in Sultanas has been practised all along the river this year, owing to the outstanding results obtained by this means, and many growers, not grasping the full significance of tipping only the yellowish parasitical growth, have cut well into the green protective foliage, resulting in more fruit being exposed than necessary, with the result that exposed fruit became scorched.

Great headway has been made in the adoption of a

standardised dip for Sultanas

as recommended by the C.S. and I.R. working in conjunction with the various State Departments of Agriculture and the A.D.F.A.

These recommendations will be adopted almost universally in the industry this year, which should greatly improve the grade, but a great responsibility still rests upon the individual grower to supply thoroughly dried fruit to the packing sheds. It has been found that the main cause of grade deterioration in our fruit when opened up overseas, is caused by excessive moisture contained in the packed fruit, and that properly cured fruit loses little in color from the voyage to Great Britain, and that while the adoption of a standardised dipping formula is a big step towards a more or less standardised

N.S.W. DRIED FRUITS BOARD.

Nomination of Candidates for Election.

THE New South Wales Dried Fruits Board consists of three members. One, the Chairman, who is appointed by the Governor, and is the Government nominee; one, elected by the growers of the Murrumbidgee Irrigation Areas, and one, elected by the growers within the rest of the State of New South Wales.

The elected members hold office for a period of two years.

The present elected members are:—Mr. E. J. Hudson, of Yenda, representing the growers on the Murrumbidgee Irrigation Areas, and Mr. R. A. C. Freeman, of Dareton, representing the growers within the rest of the State.

The term of office of the sitting members will expire at the beginning of February, and an election will be held on the 9th inst.

The following nominations for election have been received:—To represent growers on the Murrumbidgee Irrigation Areas: E. J. Hudson, G. G. Moss. To represent growers within the rest of the State: R. A. C. Freeman, L. B. O'Donnell.

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BATLOW PACKING HOUSE & COOL STORES, RURAL CO-OPERATIVE SOCIETY LTD., Box 48, BATLOW.	GEORGE WILLS & CO. LTD., 156 St. Georges Terrace, PERTH.	J. A. REDPATH & SONS LTD., 37 Johnston Street, WELLINGTON.

NEW SEASON'S DRIED APRICOT PRICES.

Mr. W. N. Sumner, Secretary of the Australian Dried Fruits Association announced on January 12, the prices per lb. of new season's dried Apricots as under. For comparative purposes last year's figures are included.

For 7 lb. tins the price is 1½d. per lb. more than for 28 lb. boxes.

Price per lb. (Ten Ton Lots).

	(1931)	1932.
4-Crown	(9½d.)	11½d.
3-Crown	(8½d.)	11d.
2-Crown	(7½d.)	10½d.
1-Crown	(6d.)	9½d.
Slabs	(6d.)	9½d.
Plain	(—)	8d.
Sacks	(6½d.)	9½d.

DRIED FRUIT PROSPECTS.

Harvest of about 60,000 Tons Expected.

The Chairman of the Commonwealth Dried Fruits Export Control Board, Mr. W. C. F. Thomas, intimates that from very limited quantities of Australian Dried Fruits arriving in British ports and being the balance of the 1931 crop, there have been sold the following quantities of fruit covering a gross value of £15,360—35 tons of Sultanas averaging £56/10/- per ton; 247 tons of Currants averaging £51/9/- per ton, and 18 tons of Lexias averaging £37/11/4.

The quantity of Australian dried fruits unsold in the British market or afloat now, amounts to 993 tons, of which 979 tons are Lexias, the demand for which is distinctly lacking.

As intimated some weeks ago by the Chairman of the Export Control Board, the stocks of Australian dried fruits season, 1931, were practically cleared up prior to the Christmas season, and retail consumption is steadily reducing the quantities held by wholesale buyers.

The prospects for the coming Australian crop are therefore excellent, as the new season's fruit, which may be due to arrive in Great Britain at the end of April or the beginning of May, will be landed under favorable conditions, which have not obtained for many years past, as usually there has been a substantial carryover of the previous season's harvest.

Reports from producing centres appear to indicate that if conditions continue favorable, a total harvest of between 55,000 to 60,000 tons may be anticipated.

Having regard to the growing requirements of the Canadian market, the Board has not yet indicated the conditions under which shipments will be licensed for export to the Dominion market. These must necessarily depend upon the actual output of the harvest, which cannot be determined for some time to come.

The first shipment of new season's dried fruits will in all probability be despatched to the British market.

Mr. Thomas expressed his great pleasure at the outlook in all export markets for the coming crop.

DRIED FRUITS.

Mr. R. M. Eldridge previously an organiser for the A.D.F.A., who has been enquiring into the prospects for Australian dried fruits, was greatly impressed with the chain stores in Toronto, which is the largest buying centre for Australian dried fruits. He was convinced as a result of his enquiries, that Canadians wanted the trade relations between the two Dominions increased.

A New Year Reminder:—

MIXED FERTILISERS PAY

Ask your Agent to Quote you for Mixed Fertilisers.

New Mixtures, Rich in

SULPHATE of AMMONIA

are now on the market, and are worth your consideration.

Experimental work has proved the value of these new mixtures, which we can conscientiously recommend.

Your Agent will point them out to you in New Season's List.

Fertiliser Recommendations From:

NITROGEN FERTILISERS PROPRIETARY LIMITED
360 Collins Street, Melbourne, C.1.

LET'S TRY IT.

Tell me not in mournful numbers
"Fruit Industry's gone to pot,"
For the fruit industry slumbers
Whilst the fruit's allowed to rot.

"No demand," complains the grower,
"People won't eat fruit these days."
Slow thou art, my friend, and slower
Are thy worn-out selling ways.

A lesson learn from Mrs. Rooster,
Clucking ever undismayed,
Was there ever such a booster
Of an egg just newly laid?

Thus demand for eggs is growing,
Thus are eggs in high repute.
Awake, good grower! Let's start crowing
Of the virtues of your fruit.

Tell the world your fruit means vigor,
Virile Health and Sparkling Eyes,
Rosy Cheeks, a Youthful Figure—
You'll sell 'em if you ADVERTISE.

—C.S.B.

CANNING MACHINERY.

A cabled report from London was recently published from the "Daily Express" to the effect that Mr D. L. Leno had invented a canning machine which eliminated the cumbersome retort system and substituted a single-device process from cooking to cooling.

The machine requires only 64 square feet of space. The British-made machine costs £900, compared with £5,000 for a similar plant made in U.S.A.

It is reported that 31 canning firms on the Continent have scrapped their machinery, replacing same with Mr. Leno's invention.

ARDMONA CANNERY.

For the year ending November 28, 1931, the Ardmona Fruit Products Co-operative Co. Ltd., shows a profit of £513, compared with a loss of £37,922 for the previous year. The gross profit of the company increased from £4,270 to £40,245. The directors state that interest charges (£18,793) have decreased by £667, and portion of the decrease has been due to the reduction in rates of interest since October 1. More sales were made in 1931 than in any previous year, and the value of turnover was second only to that of 1929. The directors report that the increase in the demand from abroad aided the operations of the company, and the exchange premium on sales for export has been of great importance. They hope that 1931 has marked a turning point in the affairs of the company. Capital of the company at £32,378 has increased by £21 in the year. Bank overdrafts amount to £264,444, a reduction of £37,387; total outside liabilities amount to £282,855, or £33,205 less than those of 1930. Assets include land, plant, etc., £107,149, other fixed assets £3,982, stocks, debtors, etc., £89,715 and accumulated loss and other intangible items £115,042.

ORTHO
TRADE MARK
SCIENTIFIC PEST CONTROL

An Ortho (VOLCK) Product for Every Orchard Pest

Read Captain D. B. Halhed's opinion of VOLCK:—

"I have been using various sprays for many years with very varying results. I don't think anything—even the price—will induce me to give up Volck. It only costs me 4d. per case to have clean fruit. I am acting on Mr. Volck's advice and using Sulphur for Thrips this next season.

Yours sincerely,
(Signed) Duncan B. Halhed."

VOLCK is manufactured in Sydney and Melbourne.
Volck's products are VOLCK, ORTHOL-K, KLEENUP (a dormant white oil spray), Lead Arsenate, etc.
Write for literature concerning KLEENUP. This can be combined with Lime Sulphur Solution, Bordeaux Mixture or Nicotine Sulphate.

Victorian Agents—H. C. Pannifex & Co., 26 Market Street, Melbourne.
New South Wales Agents—Australian Fruit and Produce Co. Ltd., 6 Ultimo Road, Sydney.
Tasmanian Agents—W. H. Ikin & Son, Hobart.
South Australian Agents—Silbert, Sharp & Bishop, Rundle Street, Adelaide.
Queensland Agents—Australian Fruit and Produce Co. Ltd., 6 Ultimo Road, Sydney, N.S.W.
West Australian Agents—Paterson & Co., Perth.

Queensland.

Gympie.—The Peanut Industry: It is noted in the recent Trade Agreement with Canada, the Canadian Government has offered (when Australia is in a position to supply all market requirements) to impose a duty against all countries on peanuts of £18/13/4 per ton (long), whilst giving Australia free entry. The Canadian imports of shelled and unshelled peanuts for the twelve months ending March 31, 1931, approximate 28,000,000 lbs., valued approximately at 1,134,000 dollars, over 80 per cent. of which were supplied by China, and 12 per cent. by the U.S.A. It is possible, in the near future that Australia will be able to supply the whole of the Canadian demand from her own resources.

* * * * *

An effort is being made to bring about more harmonious relations between the Pineapple Sectional Group Committee and the Mary Valley Pineapple growers.

* * * * *

The Committee of Direction of Fruit Marketing is to be asked to undertake the supply of disease free French bean seed for the coming season, as last season quite a large area planted returned a very small crop, and a considerable amount of disease was present.

* * * * *

Government approval has been given the C.O.D. for the continuance of the Banana levy for another year. It empowers the Committee to make a levy on all Bananas marketed in the State. It is payable on the basis of value and amounts to 1d. for every £2, or part of the nett proceeds of sale. The money raised is expended in the interests of the Banana section of the fruitgrowing industry of Queensland.

* * * * *

An interesting

experiment in re-afforestation

is being carried out at Beerwah, 40 miles from Brisbane, on land that was originally a soldier's settlement, where thousands of pounds were expended in an endeavor to produce Pineapples by the guidance of officials, but which dismally failed. These experiments are to ascertain whether the Florida Yellow Pine can be profitably grown on the comparatively poor soil of that area. Incidentally, it may establish a turpentine producing industry. There is a deficiency of land suitable for planting commercial varieties of timber in the existing State forests. The Forestry Board has, therefore to cast around for some auxiliary method of supplying the bare needs of Queensland in respect of softwoods.

The Southern Yellow Pines of Florida were chosen because the climate of Beerwah is essentially the same as that of the natural habitat of these trees. But the growing of these trees in Queensland presented much difficulty which has taxed the skill of the experts.

Originally the seeds were planted in the ordinary way, but failed to germinate. Eventually the research workers evolved the method of wrapping them in wet moss and placing them in the freezing chamber for three months; after sowing them they germinated splendidly, but further difficulties had to be overcome, the seedlings did not thrive satisfactorily; leaves turned yellow and the plant stagnated. Experimentation was continued, and it was discovered that a root fungus was necessary for successful growing. These fungus filaments were introduced and attached themselves to the roots, thus feeding the plants, which then flourished amazingly. It is understood that these trees can be tapped for turpentine, which does not interfere with the growth of the plant to any extent.

* * * * *

The monthly meeting of the Gympie Fruitgrowers' Association was held on January 12, the President, Mr. A. G. Stewart (Chairman), and Messrs. A. Cheales, W. J. Adderley, C. H. Euston, J. W. Williams, and M. Buchanan, Secretary, attended.

After discussion, it was resolved that at the next meeting of the Banana Sectional Group Committee, an endeavor be made to have the C.O.D. revise all the rolls as there appeared to be much money wasted by paying for unregistered growers.

The Secretary stated that the efforts of the packing house were being appreciated; he read a letter from Mr. Parnell, the C.O.D. representative in Melbourne, who had been following the efforts of the "house pack" since its inception. Mr. Parnell suggested the Association adopt the "two pack" Avery system, and, acting on this advice, the Association had done so to the very great betterment for all concerned. Mr. Parnell advises to cut fruit from the "hand" in such a way as to leave the ridge where the shank of the Banana leaves the hand. This is one of the essentials in the keeping qualities of the fruit. There were 24,976 cases of fruit and vegetables forwarded to the southern markets from Gympie and district during the month of December, 10,000 of which were for Melbourne.

The local butter factory during December manufactured 824,813 lbs. of butter and paid suppliers £34,152/8/-, this is a record for any December output and the second highest monthly output since its inception about a quarter of a century ago. For the year they paid over £370,000 to suppliers.

THE RULING PASSION.

"Did you see in the paper where that fellow beat his wife to death with a golf club?"

"No, how many strokes?"

Do not run any Financial Risk with your Fruit but Consign it to

HEDLEY GEEVES LIMITED

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FRUIT EXCHANGE—BRISBANE

SELECTED AGENTS FOR:

Victoria: Harcourt Fruitgrowers' Progress Assn. Ltd
Harcourt Fruit Supply Co. Ltd.
Victorian Central Citrus Assn. Ltd.

Tasmania: State Fruit Advisory Board.
New South Wales: N.S.W. Central Citrus Assn. Ltd.
Batlow Packing House Co-op. Soc. Ltd.

Tobacco Culture.

(By J. O. Henrick, B.A., B.Ag.Sc., District Agricultural Organiser, Tasmanian Dept. of Agriculture.)

Topping and Suckering.

TOBACCO BEING GROWN primarily to produce a leaf of quality and size acceptable to the manufacturer, it is essential to prevent the energies of the plant being wasted on the production of seed or very small leaves of no commercial value. In about ten to twelve weeks after transplanting, the flower-head starts to develop." This, together with portion of the stem carrying the smaller leaves, should be broken off.

The number of leaves left can only be determined by experience of the variety on the particular type of soil. The number varies from 6 to 18, and a rough rule is to leave 6 to 10 on sandy soils, 10 to 14 on loams, and over 14 on heavier soils. The rule is only approximate, as will be seen from the following additional points:—

Vigorous plants, top high.
Poor plants, top low.
Early crops, top lightly.
Late crops, top heavily.
If warm, moist weather, top lightly.
If dry weather, top heavily.

In about eight to ten days after topping, suckers will begin to appear in the axils (angles where the leaf-stalks join the stem) of the leaves, and if not removed these will produce flowers and seed. Suckers must be removed as soon as they are long enough to handle without damaging the leaf or stem. When they are about 2 or 3 inches long is the most convenient time, and the crop must be gone over three or four times between topping and harvesting.

In a normal season, if suckers are not removed, they lower the yield and reduce the quality of the leaf. There is one time, however, when they may be allowed to remain with consequent improvement of the harvested product. If wet weather is experienced shortly before harvesting, the marketable leaves would receive extra moisture and food material, which would cause them to become coarse in texture and more difficult to cure to a satisfactory color. By leaving the suckers which are showing at this wet period, they will act as an outlet for the extra food and moisture, and allow the leaves to ripen normally.

Harvesting.

From three to five weeks after topping, ripening of the lower leaves commences. With crops that have been lightly topped the ripening process may extend over six or eight weeks.

When ripe, Burley types assume a full yellow color, whereas the Virginian types take on a pale yellowish-green shade. When fully ripe the leaf edges turn downwards, and the leaf, if folded between the fingers, will crack. It becomes rough, slightly sticky, and thickened, and develops the coloring mentioned above. Green leaf is tough and pliable, and should not be picked, as it will cure green, black, or mottled. Over-ripe leaf becomes too brittle, and when on the plant exhibits brown spots, which rapidly increase in size.

When filling the barn, the importance of picking uniformly ripe leaves of the same character cannot be overstressed. If the leaves are not of the same ripeness and character, the yellowing and rate of curing in the barn will be uneven. The obvious result will be that some will cure green, and green-cured leaf has a bitter and objectionable flavor.

Harvesting is best done on a cool day with sunshine, or on a cloudy warm day. Do not harvest when the leaves are wet with dew or rain and just after rain. Rain washes away some of the essential gum which puts body and elasticity into the leaves, but two or three fine days soon restore it. Neither should leaf be harvested when the sun is very hot, as if tending to wilt it will cure out with permanent green patches.

On a single plant as many as four leaves may be ripe at the one time. Three or more harvestings will be required, according to the height of topping, and will take place at intervals of about eight to fourteen days, depending on weather conditions.

Leaf should be handled carefully, and kept out of the sun as much as possible. Heaping in big stacks should be avoided.

As the leaf arrives at the barn, operators should immediately commence the arranging of it. Two methods are in vogue:

(a) Stringing to a curing-stick by means of ordinary thin twine. This system is popular, as it allows for quicker work and easier handling of small leaves. The curing-stick is 4 feet 7 inches long and about 1 inch in diameter. The string, about twice the length of the stick, is held permanently at one end by tying, or by being pressed into a slit in the wood. The leaves, in bundles of two to four, according to size, are tied on alternate sides. A bundle is placed close to the stick, stem ends protruding above it, and the twine is looped around the butt. The next bundle is placed on the opposite side, the string being carried across and looped around the butt in the form of a figure 8. This is continued along the length of the stick, the bundles being spaced at about 4-inch intervals. Then the loose end of the string is run through another slit at the other end and made secure. It will be found that a filled stick will carry 24 or 25 bundles.

(b) Wire-stick Method.—This method is the better one, as the leaves are kept straight, separate, and evenly spaced, resulting in free movement of air, avoidance of discoloration from sweating, and production of high-grade leaf. The curing-stick is 4 feet 6 inches long and of 2-inch by 1-inch hardwood. No. 12 gauge galvanised steel wire, 16 inches long, is threaded through holes bored through the 2-inch width of the stick, thus allowing 7 inches to protrude on either side. The holes in the stick are 6 inches apart. The leaves are hung on the wire by piercing them through the stem butts, and about eight leaves are put on each length of 7 inches.

Whichever method may have been used, the tobacco is now ready for hanging in the curing-barn. This should be filled by leaf picked on the same day, and care should be taken to avoid overfilling, which leads to excessive sweating, discoloration, and difficulty in drying.

The barn must be airtight, and provided with large adjustable top and bottom ventilators. Barns commonly used are 12 feet by 12 feet or 16 feet by 16 feet base, about 15 feet to the eaves, and 20 feet or more to the ridge-cap. This construction encourages a good draught through the ventilators. Heating facilities are provided by means of furnaces placed outside the building, and large flues should distribute the heat uniformly through the whole space within.

Details relating to the construction of barns may be had on application to the Department, while useful information is also contained in the Victorian Department's Bulletin No. 53, a limited number of copies of which are procurable from the Hobart office at 6d. each, post free.

—"Tasmanian Journal of Agriculture."

(To be continued.)

(By "Syringa.")

Profitable Hints.

TO ENSURE WINTER CROPS, early sowing is essential. This applies especially to Carrots, Swedes, Turnips and Beet. The latter, if started now, is a sure winter cropper.

By making sowings now of Cabbage, Savoy, Cauliflower, Broccoli, Borecole (Kale), Brussels Sprouts and Celery, while the ground is warm, the young seedlings will be ready to transplant with the autumn rains, and be fit for table use during winter. Sow the seed in beds in sheltered position, and when the young plants are showing their second leaf, they will be fit enough to plant out in rows in well-enriched soil.

Tomatoes which were planted late should be staked, so that the fruit will not lie on the ground during wet weather.

Why not try growing your own Mushrooms this year? Excellent results can be had from planting spawn. During this month prepare a bed by digging a trench four feet wide and one foot deep, and into this put fresh horse droppings to a depth of nine inches, treading firmly down. This treading is essential so as to keep the air excluded as much as possible, thus preventing the heat from rising too high. Cover the soil to the level of the ground, and it will then be ready for the planting of the spawn in four or five weeks' time.

Pickling Cucumbers are quick growing and demand constant attention. By keeping them well watered this month fruit will be abundantly produced.

Growing crops for autumn vegetables should receive liberal dressings and mulchings of manure, together with hoeing and soil stirring, also give plenty of water. Quick-growing autumn vegetables, such as Lettuce, Radish, Mustard, Cress and Spring Onions, can still be sown. Sow the seed where they are to remain, and thin out.

To prevent the sun from scorching Rock Melons as they begin to ripen, cover them with a handful of grass or straw. When ripening, Melons do not require much water, just sufficient to keep the plants from withering.

If Broad Beans are sown early this month, crops should be ready for picking before the winter sets in.

Commence sowing Early White Onions, and a planting of Potatoes may be made early this month. When planting, see that the tubers are well forward and starting to sprout, and, if possible, avoid planting tubers that were dug later than the middle of December.

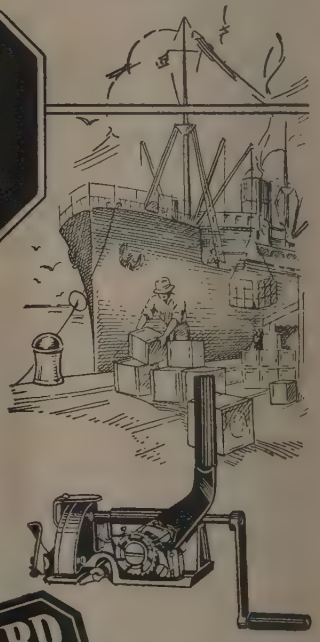
During this month the sowing of early varieties of Peas should be commenced. Sow in rows, as nearly in the direction of north and south, so that both sides may get the sun, and the rows should be about 18 inches apart. They can, however, be grown three feet apart and over, thus giving ample space to grow other crops, such as Lettuce, Radish, etc., in between the rows. Reliable sorts of Peas to sow this month are Green Feast, Melbourne Market, English Wonder and William Hurst.

You must deliver the goods!

THOUGH you sell the best quality of merchandise or produce, advertise it well, display it effectively, and have good men selling it, you do not secure a satisfied customer if safe delivery to the buyer's store or home is not effected.

Gerrard in your packing room ensures safe transport, and safe transport means a satisfied customer —one easy to "sell" on a repeat order.

Wire-seal Strapped for safe and sound delivery. IT PAYS.



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SOUTHERN VICTORIA FRUITGROWERS' ASSOCIATION.

A meeting of the executive committee of the Southern Victoria Fruitgrowers' Association was held at Box Hill on January 14. There were present Mr. W. A. Thiele (Vice-President) in the chair, W. A. Webb and O. White. Apologies were received from Messrs. L. Pepperell, A. Leber, R. M. Finlay, W. J. Nankervis and G. Fankhauser.

The Department of Lands and Survey wrote stating that Messrs. C. C. George, E. W. Thompson and J. W. Aspinall, had been appointed a committee to advise the City Council on matters affecting the Melbourne General Market for a period of three years from November 30.

Mr. E. J. Mulvaney, Secretary Department of Markets, wrote stating in reply to letter that the long bushel case as recommended by the Southern growers as the most suitable case for the export of Pears, had been incorporated in the export regulations.

Citrus Conference and Compulsory Levy.—Mr. W. A. Theile and W. A. Webb were appointed to attend the Citrus Conference on January 20 and 21, with instructions to oppose the Control Board and case levy.

The Secretary was instructed to write to the Members of Parliament representing rural districts to receive their assistance in opposition to legislation which interfered with freedom of contract.

It was decided to send a letter of sympathy to the widow and family of the late Mr. Chas. Griffeth, who was recently killed in a motor accident.

Croydon.—Mr. H. L. Tomkins presided at a meeting of fruitgrowers held at Croydon on December 26, to consider means of eradicating orchard pests, particularly thrips. Mr. A. E. Hocking, President of the Cool Stores' Association and Victorian Fruit Council, stated that the growers had not received the assistance they deserved from the present Government. He suggested a charge of one penny on account sales, which would bring in over £1,000, to pay for research work. The Fruit Council had not considered the question of insurance against thrips, but he would bring the matter forward.

It was decided to urge more intensive scientific investigation into the problems of the fruitgrower.

NEW ORCHARD DISC PLOUGH.

Mr. D. Harvey, of Box Hill, Melbourne, whose disc ploughs are favorably known throughout Australia and in many other parts of the world, is shortly placing on the market a new light-draught reversible orchard disc plough.

This improved machine is fitted with a pole and two wheels. By concentrating on implements for orchard work, Mr. Harvey has adapted this new machine particularly for orchard cultivation and hillside ploughing.

OPEN SPACES.

A little boy was sitting in church behind a baldheaded man who was scratching the fringe of hair on one side of his bald pate. The old gentleman kept it up so long that the little boy became interested, and leaning over said, "Say, mister, you'll never catch him there. Why don't you run him out in the open?"

CALCID BRIQUETTES *for* CITRUS FUMIGATION

Australian-made BRIQUETTE Machine, £8/17/6.
Sales Tax paid, free on rail any Capital City.

SYDNEY 2 Bridge St. MELBOURNE 46 Elizabeth St.

Consistently give the

Highest Percentage Kill

of any proprietary fumigant or spray and

Effectively Control Red Scale

"MAKE THEIR FIRST SMELL A STRONG ONE."

Maximum concentration is obtained within two minutes, and before the gas has time to leak through the tent it gets its full strength to work on the scale. You give your car, truck or tractor a quick-combustion gas which does its work without leakage of power. Apply the same principle to fumigation.

50,000 trees will be fumigated on the Murrumbidgee Irrigation Area this Season with Calcid Briquettes.

Australian Distributors:

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ADELAIDE 12 Page St. BRISBANE 12 T. & G. Bldg.

The Fruit Trade

Market Reports and News Items

REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS.

Advertising in this Journal.

Sydney: **NEW SOUTH WALES.**
Chilton, F., City Fruit Markets.

Melbourne: **VICTORIA.**

Bell, Banson Pty. Ltd., Wholesale Fruit Market.
Cave, F., & Co. Pty. Ltd., Wholesale Fruit Market.
Davis, J., Pty. Ltd., Wholesale Fruit Market.
Frankel, H. & S., Wholesale Fruit Market.
Lister, G., Wholesale Fruit Market.
Lucas, D. S., 132 Franklin Street, Melbourne.
Millis, A., & Sons, Wholesale Fruit Market.
McLean, N. N., Pty. Ltd.
Mumford, J. G., Wholesale Fruit Market.
Pang & Co. Ltd., H. L., Wholesale Fruit Market.
Patrikeos, P. A., Wholesale Fruit Market.
Producers' Dist. Society, Wholesale Fruit Market.
Ross, J. W., Wholesale Fruit Market.
Sang Goon & Co., Wholesale Fruit Market.
Silbert, Sharp & Davies, Wholesale Fruit Market.
Stott & Sons, T., Wholesale Fruit Market.
Tim Young & Co. Pty. Ltd., Wholesale Fruit Market.
Tong, W. S., Wholesale Fruit Market.
Vear, F. W., 49 William Street.
Wade, H. M., & Co., Wholesale Fruit Market.
Wilson, H., Wholesale Fruit Market.
Wing, R. A., & Co., Wholesale Fruit Market.
Wing, Young & Co., Wholesale Fruit Market.
Woolf, G., Wholesale Fruit Market.
Wholesale Fruit Merchants' Assn., J. D. Fraser, Temple Court, 428 Collins Street, Melbourne.
Young, J. H., & Co. Pty., Wholesale Fruit Market.

Brisbane: **QUEENSLAND.**

Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Comino Bros. Ltd., Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
Whitton, W. J., & Co., Fruit Markets.

Hobart: **TASMANIA.**

E. R. Cottier Pty. Ltd., Temple Place, Macquarie Street.
Jones, H., Co. Ltd., Fruit Exporters.
Peacock, W. D., & Co., Fruit Exporters, and at London.

Launceston:
Bender & Co. Pty. Ltd., 100 Elizabeth Street.

Dunedin: **NEW ZEALAND.**

Co-operative Fruitgrowers of Otago Ltd.

London: **GREAT BRITAIN.**

Pask, Cornish and Smart, London.
Marketson & Co. Ld., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Poupart, T. J., Ltd., Covent Garden.
Ridley, Houlding & Co., Covent Garden.

Hull:
The Port of Hull, London and N.E. Railway. Rep. Burns, Philp & Co. Ltd., 7 Bridge Street, Sydney.

Manchester:
The Port of Manchester Rep., W. J. Wade, 8 Bridge Street, Sydney.

Liverpool:
Johnson, T. S., & Co.

Bremen: **GERMANY.**

Fruchthandel, Gesellschaft.

Hamburg:
Astheimer, P. H., & Son, Fruchthof.
Gustav Bey, Hamburg.
Int. Fruit Import Gesellschaft.
Lutten, J. H., & Sohn, Hamburg.
Stier, Aug., Fruchthof.
Timm & Gerstenkorn.

Copenhagen: **DENMARK.**

International Fruit Import Co.

New South Wales.

Sydney (22/1/32).—The Market Representative of the Fruitgrowers' Federation of New South Wales reports prices as follows:—Carrington, large 10/- to 14/-, med. 11/- to 15/-, small 7/- to 9/-; Grav., large 12/- to 15/-, med. 14/ to 16/-, small 9/- to 12/-; Jon., large 15/- to 18/-, med. 13/- to 16/-, small 10/- to 12/-; Allsop's, large 7/- to 9/-, med. 4/- to 6/-, small 3/- to 4/-; Jon. (cooking) 11/- to 14/-, med. 12/- to 15/-, small 8/- to 10/-. Pears—Clapp's Fav., large 7/- to 9/-, med. 5/- to 7/-, small 4/- to 6/-; Packham's Triumph (blemished) 4/-; W.B.C. (local, Qld., and Vic.), large 8/- to 11/-; med. 6/- to 8/-, small 5/- to 7/-; Apricots, local 3/- to 7/- half case; Tas., 2/- to 7/- half case; Bananas, 3/- to 14/-; Citrus—Grapefruit, local 14/- to 16/- bush. case; Californian, 45/- bush. and one-third case; Valencias, 2nd crop, 3/- to 8/- case; Mandarins, 2nd crop, 3/- to 12/- bushel; Navels, 2nd crop, 3/- to 8/- bush.; Common Oranges, 2nd crop, 2/- to 6/- bush.; Grapes—Local Sweetwater, 9/- to 12/- half case; Black Hamburg, 13/- to 16/-; Black Muscat, 14/- to 18/-; Qld. Black Hamburg, 9/- to 13/-; Qld. Black Muscat, 9/9 to 14/-; Figs, 6/- to 14/- half case; Mangoes, 10/- to 18/- bush.; Nectarines, Vic. 8/- to 12/- bush., Qld. 8/- to 14/- half bush. case; Peaches—Elberta 5/- to 8/- half case, Crawford 11/- to 13/- bushel; Pineapples, 7/- to 13/- case; Papaws, 8/- to 10/-; Plums: Wickson (local), 5/- to 8/- half case; Satsuma and Blood 4/- to 7/- half case; Wickson (Vic.) 8/- to 13/- bushel; Passionfruit, 2/- to 6/- half case; Tomatoes, 1/- to 4/- half case.

Tasmania.

Hobart (22/1/32).—Gooseberries, 1/6 to 2/6 half case; Plums, 3/6 to 7/-; Apricots, 5/- to 7/9 case; Kentish Cherries, 4/9 half case; Cherries, 9/3 to 21/6 half case; Peaches, 4/- to 7/3 half case; Apples, 3/- to 8/3 half case; Tomatoes, 10/6 to 20/6 case.

Queensland.

Brisbane (22/1/32).—Apples, Jons., best 10/- to 12/- case, very choice up to 13/-, other grades 7/- to 8/-; Grav., choice 11/- to 12/-, odd sales at 13/- case, inferior Grav. 4/- to 6/-, G. Smith 8/- to 12/- case, COP. 10/- to 12/-, Munros 7/- to 9/-, SPM. 7/- to 10/-; cookers, best, 8/- to 10/-, inferior 4/- to 6/-; Pears, 6/- to 12/- bushel case, 3/- to 5/- half case; Vic. Pears, 13/- to 14/-; Peaches 4/- to 6/-; Plums, best 8/- to 9/-, inferior 3/6 to 5/- case; Nectarines, best 8/-, others from 5/- to 6/- case; local Papaws of a special class and in unblemished condition, sold from 3/- to 4/- case, and other grades from 1/6 to 2/6 case; Grapes—Black prime (Roma) 8/- to 9/- case, Coominya Grapes 6/- case; Southern Oranges 8/- to 12/- case; Southern Lemons 8/- to 14/- case; second crop Qld. Oranges 3/- case; second crop Mandarins 2/6 case; Passionfruit 5/- to 6/- case; second grade from 2/- to 4/-; locally grown Mangoes 1/- to 3/6 case; smooth-leaf Pines 5/- to 7/-.

West Australia.

Perth (22/1/32).—Apples, new season, flats 4/- to 7/-, dumps 5/- to 9/- (special to 11/-); stone fruit: Plums, flats, Satsuma 4/- to 8/6, Wickson 5/6 to 10/- (special to 13/6, others from 4/-), Burbanks 3/6 to 7/6 (special to 11/-), other varieties 3/6 to 10/-; Peaches, flats 7/- to 12/- (special to 13/-, others from 5/-); Nectarines 5/6 to 10/- (special to 12/6, others from 4/-); Citrus: Vals., flats 4/- to 7/6, dumps 5/- to 10/- (others from 4/-); special to 11/3; Lemons, 7/- to 14/-; Pears, Bart-

lett, flats 3/- to 5/6; other varieties 2/6 to 4/6; Grapes, open, white 3/- to 5/-, colored 3/6 to 5/6 (a few Muscats to 12/-); closed 2/6 to 3/6 (special to 5/-); Passionfruit, 3/6 to 7/-.

Victoria.

Melbourne (28/1/32).—There has been a slight improvement in sales; Tomatoes are still in excessive supply, and prices have fallen further. Apricots from country districts are finished, and small consignments only are arriving from Tasmania. Peaches are also scarce, being between crops, prices have increased. (Excepting where otherwise stated, the quotations are at per bushel case.) Apples—Eating 6/- to 10/-, cooking, 5/- to 8/-; Apricots to 10/- and 11/-; Currants—Black 5/6 a dozen lb., red 5/- do.; Figs, 6/- to 8/-; Grapes—Raisin de Dames, to 12/- and 14/-; Oranges—Valencias, average standards, Victorians 6/- to 8/-, Mildura, unwrapped, best counts, to 10/-, wrapped to 13/- and 14/-; Lemons—local 6/- to 8/-; Grapefruit—few selected Curlwaa lines, medium counts 17/- to 23/-; Raspberries, 5/- to 7/- a dozen lb.; Strawberries, 8d. to 1/- a punnet; Nectarines, 6/- to 8/-; Peaches to 20/-; Pears—culinary 8/- to 10/-, dessert 8/- to 9/-; Plums, 6/- to 8/-; Bananas—Queensland, green 9 15/- to 17/-, 7 and 8 12/- to 16/-, 6 10/- to 12/-; Pineapples—Queen, 12/- to 14/-; small and green, 9/- to 10/-; Passionfruit, to 9/- half-case; Melons—Water 8/- to 9/-, rock (Cantaloup) 7/-; Tomatoes, 3/- to 7/-; Cucumbers, 5/- to 8/-.

The Melbourne market manager of the Federal Citrus Council of Australia reports:—"The citrus market is dull. Sales:—Valencias, average standard, Victorian, 6/- to 8/-; lines below average standard lower and slow of sale; selected lines higher; good Mildura, unwrapped, 10/-, best counts; good Mildura, wrapped, 12/-, best counts; a few specially selected Mildura lines, 13/- and 14/-, best counts. Grapefruit—A few selected Curlwaa lines, medium counts, 17/- to 23/-; Lemons—Good standards, to 7/-; few specials 8/-."

RETAIL FRUITERERS' ASSOCIATION.

The monthly meeting of the Melbourne and Metropolitan Retail Fruiterers' Association was held on January 7; there was a good attendance of delegates. A programme of sports was adopted for the approaching retail fruit trade picnic at Sorrento on March 9.

There was a general discussion on the proposal to establish branches of the Association in some of the provincial centres of the State, and although no decision was arrived at, many excellent suggestions were made and further consideration was adjourned until next meeting. It was pointed out during the discussion that nearly all the other leading trade associations had branches or other organisations affiliated with them throughout the State, with mutual advantages to both.

Mr. Judd, one of the past presidents, was also congratulated on having been so successful in gaining first prize for the cleanest stall in the Caulfield Market, and also runner-up in the class for the best kept stall for the year.

Comments on Trade.

Retail trade during the month has shown some slight seasonal improvement, and although weather conditions were highly favorable, the improvement was not what should be expected, although prices of most commodities were very reasonable.

There has been an abundance of vegetables, and the quantity of fruit coming forward is ample for all requirements. Berry fruits have been scarce compared with other years, and prices in comparison, but still there has been sufficient as there is practically no jam-making this season so far, and many customers state that owing to their financial position they are unable to lay in a store of jams or other preserves this year. Some good cooking Apples are coming in and selling at fair prices, and Lemons are rising a little in values. The sale of Oranges is diminishing now that the other fruits are coming along.—Edw. W. Thompson, Secretary Melbourne and Metropolitan Retail Fruiterers' Association.

FRUIT TRADE NOTES.

Victoria.

Messrs. F. Cave & Co. Pty. Ltd., Melbourne Wholesale Fruit Market, report that new season Victorian Apples are now coming on to the market. The varieties include Gravenstein and early cooking varieties. Satisfactory prices are being obtained. It is anticipated that large quantities of Tasmanian Apples will be placed on the Victorian market this season. In addition to consignments from growers, quantities have been purchased straight out by mainland merchants.

Grapes from Mildura and the Goulburn Valley are now coming forward and meeting with a good market. It is anticipated the Grape crop will be affected by the hot weather. Many Grapes have been dried up by the sun, Gordos particularly seem to have suffered severely.

During the month, Mr. Cave has been handling large quantities of fresh Tasmanian Black Currants which are packed in 12 lb. boxes, and are realising good prices.

This firm is contemplating the erection of fruit ripening chambers on similar lines to the specifications laid down by the Council for Scientific and Industrial Research.

Mr. Cave has just returned from a trip to Portland, Vic. This district has an excellent crop of Apples. In his opinion it is the best crop in the State. The fruit is of an excellent quality, and unless anything unforeseen happens, it is anticipated that the district will ship 40,000 cases of Apples to overseas markets this year, and thus help to keep the Victorian Apples on the map. Varieties grown in this district are Jonathans, Rome Beauties, Five Crown, Delicious and Rokewood. With the exception of Romes, all the varieties mentioned have set excellent crops. Mr. Cave was impressed with the excellent condition of the orchards generally in Portland and surrounding districts. Mr. E. W. Hedditch, who is a large grower, has one of the finest crops of Apples he has seen. It is interesting to note that the codlin moth does not attack the fruit to any extent in this district. It is possibly due to the scattered state of the orchards and the fact that the same are carved out in bush country with heavy timber surrounding.

Tomato plantings this season have not been as heavy as in previous years, and rain is badly needed to bring the fruit on.

In order to cater for his increasing business with Queensland and N.S.W. Banana growers, Mr. J. G. Mumford has erected Banana-ripening rooms at his store in the Western Market. These rooms are in addition to the previous rooms, which are situated at 449 Flinders-lane. The new Banana rooms are erected to specifications supplied by the Committee on the maturation and transport of Bananas, working under the direction of the Council for Scientific and Industrial Research. This Committee has been studying the subject for some time, and judging by the quick and effective results being obtained, Mr. Mumford considers that they have done splendid work.

Messrs. H. Louey Pang & Co., Wholesale Fruit Market, have also installed four new Banana-ripening chambers. Each chamber is capable of holding 60 cases of Bananas.

F. W. Vear Pty. Ltd. have been handling during this month large quantities of Tasmanian fresh Black Currants. The bulk of the fruit forwarded from Tasmania is handled by this firm. They are packed in 12 lb. boxes and have been selling well at excellent prices.

SOUTH AUSTRALIA.

Last year South Australian celery growers forwarded sixteen hundred tons of celery by rail to Melbourne; this was followed by 152,600 half cases of Tomatoes. Quantities of Cherries, cucumbers, peas, beans, and onions, were also sent to Victoria from the same State.

Fruit Show in London.

The general manager of the Government Produce Department (Mr. G. A. W. Pope) stated that he had received from the Trade Commissioner (Mr. C. F. G. McCann) catalogues containing detailed information regarding the Twelfth Annual Fruit Show, to be held in London on June 7 and 8, 1932.

Entry forms, which must be returned to the Secretary, Department of Markets, Melbourne, on or before April 6, 1932, are available at the office of the Produce Department, Light-square, Adelaide, and any fruit growers who desire to forward exhibits are invited to communicate with the Department.

The Fruit Show offers growers a splendid opportunity to advertise Australian Apples and would also assist in a practical manner the campaign inaugurated by the Agent-General and Trade Commissioner to stimulate a demand for our produce in the United Kingdom.

NEW REGISTRATIONS.

N.S.W. Wholesale Fruit Distributors' Association, 661 George-street, Sydney—Com. 24/11/27. Ptrs.: Weymark & Sons Ltd., Duffy Bros. Ltd., Wm. H. Price Ltd., Wing Sang & Co. Ltd., Hop Lee & Co. Ltd., Wing On & Co. Ltd., Andronico Bros. Ltd., Fred Chilton, Veitch & Pierce, Caddy & Lee, Walter Stoyles, W. McEnnally & Co., and Cauldwell Bros. Regd. 15/12/31.

Verity Fruit Company, The, City Fruit Markets, Hay-street, Sydney, dried and fresh fruit merchants—Com. 28/12/31. Ptrs. Young District Producers' Co-op. Association Ltd. Regd. 29/12/31.

James & Bradley, City Markets, Quay-street, Sydney, fruit and vegetable merchants—Com. 21/7/31. Proprietor: Harry James. Registered 26/11/31.

Secretary: "Do you wish to see Abdullah Rajaputra, the great Hindu fortune-teller, madam?"

Visitor: "Ay, young man. Tell him it's his sister frae Glasgow."

CLENSEL
Insecticide and Fungicide
BRITISH PRODUCT
Information from—
BRUCE ANDERSON,
15 Loch St., Camberwell, E.6. Tel. W 3324

NORTHERN SUBURBS (SYDNEY) SHOW.

The following were the fruit awards at the Northern Suburbs (Sydney) Show, held on January 21 and 22:—

Apples: Miss G. Dole. Pears (China): W. H. Jones; a.o.v., H. G. Moore. Peaches (Elberta): A. C. Smith; a.o.v., Miss Dole. Passionfruit: W. J. Fagan. Tomatoes (Ponderosa): A. J. Dallimore; a.o.v., R. Shinfield; collection, H. Britton. Plums: Narrabeen, W. J. Fagan; Satsuma, Miss Dole; Wickson, A. Dallimore; Santa Rosa, W. J. Fagan; a.o.v., L. G. Clarke; collection, H. G. Moore. Nectarines: L. G. Clarke. Oranges: Valencias, W. J. Fagan; do., 2nd crop, W. J. Fagan; White Silettas, W. J. Fagan; Navel (2nd crop), W. J. Fagan. Mandarins (Emperor): W. J. Fagan; a.o.v., W. J. Fagan. Lemons: Lisbon, A. Dallimore; Eureka, A. B. Radford. Citrus collection: W. J. Fagan. Best packed Japanese Plums: W. J. Fagan. Best packed Oranges: W. J. Fagan.

GOSFORD PACKING HOUSE.

Gosford Packing House has decided to instal an up-to-date washing, brushing, and sterilising plant before next season. The proposed plant is of the latest type, comprising soaking tank, washer-brusher for cleaning the fruit, borax process, drier, polishing brushes, and paraffining apparatus.

When installed, the plant will bring the packing house outfit up to a standard which will compare with anything in the Commonwealth. It should enable the Gosford growers to compete successfully in the export trade, in addition to enhancing the value of the house's output on the Sydney and other Commonwealth markets.

Mr. A. S. Krcrouse, of Sydney, who was for many years an orchardist in Tyabb, Victoria, paid one of his periodical visits to Victoria during January. Mr. Krcrouse is at present interstate representative for E. Winters, grower's agent, Brisbane Fruit Exchange, Turbot-street, Brisbane, Queensland, and Mr. F. Chilton, City Fruit Market, Sydney. During his stay in Victoria he visited most of the leading fruit centres.

She had paid strict attention throughout the lesson, scarcely taking her eyes off the schoolmaster. At the end he said: "Now, Lucy, I'm sure you have something interesting to tell us. What is it?"

She replied: "Please, sir, do you know you are wearing odd socks?"

Rockhampton

The starting point for the Great Queensland Central Railway has a population of 30,000, and offers a good market for your fruit.

ORCHARD FRUIT SUPPLIES
offer a prompt and reliable selling service. Best Prices. Prompt advices and returns.

Reference:—Australian Bank of Commerce.
'Phone: 1584.
P.O. Box, 223. Brand: ORCHARD RTON.

Codlin Moth Control

No Single Pest has Cost the Orchardist More

Eliminate Your Losses

Safeguard Your Fruit

Use—"Vallo" Arsenate of Lead (Paste-Powder)

Why is this "Vallo" product so universally popular?

BECAUSE OF ITS— WONDERFUL FINENESS, SUPERLATIVE QUALITY, OUTSTANDING SUSPENSION, REMARKABLE KILLING POWERS.

"Vallo" Prepared White Oil

A spray which will kill the codlin moth eggs before they hatch. Unlike White Oil Emulsions, this product contains no added water.

The many tests which have been conducted with this ideal spraying specific have proved, beyond doubt, the many advantages of this oil, when used in combination with Arsenate of Lead for the calyx and cover sprays, and thereafter in accordance with directions.

Victor Leggo & Farmers Ltd. - Melbourne

N.S.W. Distributors—A. Victor Leggo & Co. Pty. Ltd., 9 Phillip Street, Sydney.
Queensland Distributors—A. Victor Leggo & Co. P ty. Ltd., 72 Albert Street, Brisbane.

PORT of LONDON

The World's Best Fruit Market

Sales can always be depended on for best quality fruit at highest prices.

Besides its own vast population, London supplies the seaside resorts. Tourists make their headquarters in London and want the best fruit.

London has always been the centre of the Australian and New Zealand fruit trade, and although many efforts have been made to divert it to other ports, the presence of its huge local market with expert distribution agencies will ensure it remaining so.

A well-known fruit exporter, after a recent trip, reports that the facilities for handling fruit are second to none in the world. Every convenience for the sales and showing of fruit are provided, all fruit is sold by auction, and he found that the broker always looked to the growers' interests.

All particulars as regards charges, etc., can be obtained from:

Capt. A. W. Pearse, Port of London Authority, **10 Bligh Street, Sydney**

Elimination of Non-Paying Hens.

Some Hints on Culling.

TO the inexperienced (writes the New South Wales Poultry Expert of the Department of Agriculture), the work of culling is somewhat of a problem, and many are at a loss to know how to commence eliminating the non-paying hens. In this connection the first consideration is to ascertain what proportion of the hens is laying, and this can be done by checking the production from each pen over a period of about a week. If it is found that the egg yield from some pens is below 50 per cent. during that time it is advisable to commence culling.

The first steps taken should be to pick out the birds that show coarseness, which is indicated by sunken eyes, wrinkled and feathery faces, and a heavy appearance generally. Those are the sorts that even if they are laying will not lay regularly, and no loss can be occasioned by marketing them. In fact, being mostly fat and heavy birds, they will realise a good price in the market if sold before the glut of hens commences.

The next class to be dealt with is that which includes those birds which do not look fresh and may perhaps be drying up in the comb. These should be handled for the purpose of ascertaining the width apart of the pelvic bones. If they are close together, or less than an inch apart, it may safely be assumed that the birds are not laying, but judgment must be exercised to determine whether the birds may be only temporarily off laying, due to some little disturbance to the general health or to a change of conditions. This applies particularly to the heavy breeds, of which a number may be just recovering from broodiness. It is, therefore, as well to give the benefit of the doubt to any birds that have large, prominent eyes, a clean face and fine skull. Where possible any doubtful ones should be penned separately for a week or two to see if they show signs of coming on to lay again.

Any birds whose combs have commenced to shrivel up and have lost their pliability can be dispensed with, because they are probably about to break into a moult; and such early moulters do not usually come on to lay any earlier than those which moult much later in the season, or if they do they will not lay consistently.

Some of the best layers, and those which will most likely continue to lay well into the autumn, are those with bright red faces, alert and prominent eyes, and somewhat bald on the head. These can be seen at a glance, and no mistake can be made in keeping them until they moult.

MASH FOR PULLETS.

"J.N.G." (Emerald) writes:

Question 1.—I have 40 well-bred pullets from a well-known strain. They are now 3 months and 3 weeks old, and have been reared on dry mash. I am told on all sides that to obtain best egg results I should feed wet mash. Will you advise—and if you advise wet mash will you state the best way to make the change, giving also what you would consider the best possible method of feeding for egg production. Please give mash and grain in weight. I am able to use an unlimited supply of grass

"DOUBLED THE EGG YIELD"

Satisfied User's Tribute to Karswood Poultry Spice.

THERE'S nothing like a practical test to prove the accuracy of a manufacturer's claims for his product. Mr. Tapp's letter below describes how he gave Karswood Poultry Spice a hard test, and how it came through with flying colors. Poultry-keepers all over the country have made and are still making these tests—and the results are reflected in the constantly increasing sales of Karswood. Buy a packet and try it for yourself. But do not expect an immediate improvement. Karswood works naturally, not suddenly. It takes at least a fortnight to produce results, but they are good and sure.

"Doubled Egg Production."

Dear Sir,

I have got a lot of fowls, and this season I am doubling my number. For the past two years I have been a user of Karswood Spice and can honestly say that I have doubled my egg production. I may state that when your Karswood Poultry Spice first came under my notice I gave it what I consider a hard test, viz., I had 12 pullets that had not laid. They were the same age. I yarded 6 and fed them with wet mash (pollard) and wheat and Karswood Poultry Spice. These 6 laid five weeks before the other 6 that were fed on wet mash (pollard) and wheat without Karswood Poultry Spice, thus proving without doubt the benefit of Karswood Poultry Spice. This I have mentioned to my friends on various occasions here.

(Sgd.) W. H. TAPP, St. Mary's,
1/5/29 East Coast, Tasmania.

"Produced More Eggs."

"I have not been feeding on Karswood since I have been at Koorawatha as I have not had any decent fowls. I have got back on to the White Leghorns again and I intend to start back on Karswood, as when I was at Wellington three years ago I had 17 hens and I used to get 7 dozen eggs every week for months at a stretch, besides using all we could about the house for our own use. I always used Karswood over there as it seems to keep the fowls in better health when fed on it and produced more eggs than fed without it.

(Sgd.) H. H. BISHOP,
14/5/29 Koorawatha.

NOTE THE ECONOMY.

1/- Packet supplies 20 hens for 16 days.
2/- Packet supplies 20 hens for 32 days.
13/- (7lb.) tin supplies 140 hens for 32 days.

SUPPLIES.

Karswood Poultry Spice is obtainable from all wholesalers and stores at the following standard retail prices:—½ lb. packet, 1/-; 1 lb. packet, 2/-; 7 lb. tin, 13/-; 14 lb. tin, 25/-; 28 lb. tin, 48/-.

KARSWOOD
POULTRY SPICE
Increases Egg-Production Without Forcing.

cuttings from the golf links. Can you state roughly the quantity they should be given at midday?

Answer.—If your birds are fed on a well-balanced dry mash, there should be no reason to change over to a wet mash. Though the latter method is showing slightly better figures than the dry mash system at the Burnley egg-laying competitions, there are any amount of successful commercial poultry farmers using nothing but dry mash, and a considerable difference of opinion exists as to the relative merits of the two systems. The question of labor is an important one that should not be overlooked, and you should consider this before making a change.

Should you decide to change over to a wet mash, it would be advisable to do this gradually, as such a radical change in diet might give the pullets a setback. I would advise if changing over to continue a dry mash in reduced quantities, feeding a little wet mash in addition, say, at midday, then gradually further reducing the dry mash and increasing the wet until the complete substitution is made. It would be difficult for you to overfeed the green feed at midday. A kerosene tin full to 100 birds would probably be found sufficient. Some breeders feed up to 50 per cent. of finely chopped green cuttings in their mash.

Question 2.—Could you state roughly what you think one should make (profit per bird per year) from well-bred pullets kept under the best conditions? With 200 head of layers, what should the profit be per year?

Answer.—It is impossible to answer this question with any degree of accuracy without knowing full particulars as to your ability to buy good foods under the best terms, and prospects of marketing your eggs at the top prices and with the least possible expense. Some breeders who are members of co-operative buying schemes and have a private market for the whole of their output of eggs at top prices are making very much more out of their birds than others not so favorably situated. Apart from this, it would be only guesswork to give an estimate on the state of the markets to-day. In normal years such a flock of good pullets might be expected to return a profit of 6/- or 7/- per head over feed costs. The question of labor, overhead and other expenses have to be considered.

Question 3.—Some people near here use the following wet mash:—60 lbs. pollard, 30 lbs. bran, 10 lbs. Allegg, and with a flock of 180 birds averaged 250 eggs per bird last year. Do you consider Allegg good? Can you quote price and agents?

Answer.—If the wet mash which you state is being used with success by them and on which a flock of 180 birds averaged 250 eggs per bird last year, I would certainly advise you to use it, but the figures certainly sound rather exaggerated to me.

At the Burnley competitions where the picked birds from many of the leading egg-laying strains of the State are competing, the yearly average per bird is under 210. Of course, this includes all breeds represented, a few of which are poor producers, but an average of 250 eggs for a flock of 180 birds is particularly high.

Allegg is manufactured in Sydney and is used with success by many poultry breeders both for the breeding birds and layers. The local agents are Messrs. E. T. Moulden & Son, 48 Victoria-street, North Melbourne. The contents of Allegg include blood and bone meal, charcoal and oil. Add 10 per cent. to the mash. The cost is 19/- per 100 lbs.; 10/- for 50 lbs., and 5/3 for 25 lbs.

Question 4.—What quantity of mash and grain are advised per bird per day?

Answer.—Two ounces of mash in the morning and 2 ozs. of grain at night per bird should be sufficient for stock in egg-laying condition. Feed the breeders a little less mash and a little more grain than the layers.

New Zealand.

The chief varieties of fruits grown in North Auckland are:—

Apples—Gravenstein, Cox Orange, Jonathan, Northern Spy, Munro or Dunns, Ballarat, Delicious, Dougherty, and Granny Smith.

Pears.—Williams, Bon Chretien, Beurre Diel, Beurre Bosc, Louise Bonne, P. Barry, Packham's Triumph, Winter Nelis and Cole.

Plums.—Early Orleans, Blue Gage, Diamond, Ponds Seedling, Golden Drop; Jap. varieties: Wright's Early, Burbank, Sultan, Satsuma, and Purple King.

Grapes (out of doors).—Albany Surprise; (under glass), Black Hamburg, Golden Queen, and Gros Colman.

Lemons.—Lisbon, Eureka, Messina.

Oranges.—Jaffa, Washington Navel, Valentia Late.

Grape Fruit.—Coltman's Pomelo.

Peaches.—Christmas, Mammie Ross, Wiggins, Elberta, Paragon, Wheatland, Golden Queen.

Tung Oil.

Quite an interest has been aroused in this valuable oil, and at least six companies are planting the tree in quantity, in various parts of the North.

Passionfruit.

This delightful fruit is now being grown in larger quantities than formerly, not only for fresh fruit, but also for the pulp and for juice preserved under vacuum.

American Cranberry (Vaccinium (Oxycocus) Macrocarpin).

Several of the hybrid forms of this edible fruit from the North American continent, have of recent years been introduced to N.Z., and some of them have started to bear well, they succeed on any garden soil, but have a liking for drained peaty loams, the fruit is somewhat like a Black Currant, and is useful for pie fruit, or jams.

Phornium Tenax.

New Zealand Flax: This useful plant seems to have a great future before it, if all that is claimed from the new hybrid varieties now being grown, and for the improved methods of manufacture which are now being explored. It is claimed that in future the wool packs and similar materials will be made from the N.Z. Flax instead of from imported fibres.

NEW ZEALAND APPLE EXPORTS.

Control Board Criticised.

Reports from New Zealand convey the impression that there is considerable dissatisfaction in the Apple-growing industry there. Following the return of Mr. H. E. Stephens as the Board's representative in England, the Chairman of the New Zealand Fruit Export Control Board, Mr. J. L. Brown, took over the London management. The "Nelson Evening Mail" reported that at a largely-attended meeting of the Hills Fruitgrowers' Union, a resolution was carried with one dissentient, demanding the recall of Mr. Brown to give an account of his stewardship, and that the person to be appointed as representative in London should have the necessary English and Continental experience.

At a meeting of the Executives of Fruitgrowers' Associations of the Nelson Province (states the "Nelson Evening Mail"), Mr. McKee read a statement on the shipments of Apples from Tasmania, Victoria, and New Zealand, showing that whilst Australia exported very large quantities of early and mid-season fruit, New Zealand at the same time was sending only a limited part

of her export, and later in the season (in June), the position was reversed insomuch as Australia, with an export of more than double that of New Zealand, sent away 500,000 cases, and New Zealand 680,000 cases. This meant that owing to the erratic shipping arrangements the bulk of New Zealand fruit arrived on the overseas markets when fruit realisations were falling, the early market being much the better proposition.

Big Losses Alleged.

After a general discussion on a number of subjects, it was unanimously decided to send the following resolution to the Export Control Board:—

"This meeting of fruitgrowers of the central district of the Nelson Province hereby expresses to the New Zealand Fruit Control Board its disappointment at the results of the 'Brown' scheme for the sale of New Zealand fruit on the Continent of Europe. The claims, made here, for the scheme by Mr. J. L. Brown have in nearly all particulars been disproved by results, and according to estimates of competent authorities has involved the growers in a loss of at least £100,000. This loss is so serious as to place many growers in a hopeless position financially. We are further of the opinion that the Board has failed in its duty to the growers in that they have taken no opportunity of making a full explanation of the departure from the terms and conditions of the proposal as outlined by Mr. Brown. We are also of the opinion that the ex parte statements made by members of the Board are an inadequate explanation of the great losses incurred. This meeting is also convinced that had the Control Board complied with the wishes of the growers as expressed by resolutions, and appointed as its representative in London one with the necessary commercial training and experience in the sale of fruit in overseas markets, the great losses wholly or in part would in all probability have been avoided. As growers exporting a large proportion of the total, we demand that the best expert advice be obtained by the Board before deciding upon the system of sales for the 1932 season."

Fire Blight.—Comparative studies of susceptibility and resistance to fire blight in Pear and Apple have received the most attention during the past year. Further propagation of and testing of the resistant seedling previously reported has been done. In addition, fruitgrowers who have interested themselves in this problem have reported varieties of Pears which, under their cultural conditions, seem to be resistant. Several of the more promising of these are being propagated and tested. A study of the comparative anatomy of the most resistant and most susceptible varieties is in progress. How the fire blight organism enters the blossoms still is under investigation. (E. L. Nixon.)

Red Hill and District Agricultural and Horticultural Society

11th Annual Show

Wednesday, 23 March, 1932

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"The Fruit World," Box 1944 G.P.O., Melbourne.

SUGAR EMBARGO.

Tasmania Requests a Test Case.

A deputation representing Hobart citizens early in December waited on the Premier (Mr. McPhee) and the Attorney-General (Mr. Baker), and asked that a test case be prepared for the High Court to test the validity of the sugar agreement.

Mr. Baker, in reply, said that, although he had not come to a decision, the difficulty was to find a method of attack on the iniquitous agreement and embargo, which placed the fruitgrowers of Tasmania at such a disadvantage.

Mr. McPhee assured the deputation of the wholehearted support of the Government in the fight to have the embargo removed.

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THE DAWN OF THE NEW DAY.

Sir Isaac Isaacs' Optimism.

"The whole world has lost its equilibrium. It lost it in the war, and in the peace that followed the war. But the world is not going to perish—it is going to live—but if it is to live up to the standards we have set, it must find a proper adjustment. It is just in groping for that proper adjustment that the trouble lies. I am sure that our trials are only transient, and, owing to the courage of the Australian, I am convinced that the dawn of our new day is already commencing to break. Courage has never failed Australians yet. The producers of this State have given you proof of that. They have shown that they have faith in the future of their country, and that they are determined to do all that can deserve success and everything possible to attain it. I want to say to producers, in all sincerity, that they have my fervent hopes for their ultimate success."—His Excellency the Governor-General at the Perth Royal Show.

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Death to Aphis (Plant Lice) and Other Insects

Aphis and other insects are common enemies of the orchardist and gardener. Protect your trees, vines and plants with "Black Leaf 40."

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"Black Leaf 40" is recommended for killing wooly aphis, apple aphis, peach aphis, aphis on roses, other flowers and vegetables, mussel scale (young), Harlequin fruit bug, holy or cross bug, oleander scale (young), San Jose scale (young), red scale (young), red mites (Summer), rutherglen bug, pear and cherry slug, thrip, fine scale (young), pea mite.

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Paint the roosts lightly with "Black Leaf 40" just before the birds go to roost. Body-lice will be destroyed while the flock roosts. To help prevent mites from attacking fowls, tie or tack a piece of heavy cloth around ends of roosts and roost supports and saturate with "Black Leaf 40;" spray inside of house with "Black Leaf 40," three tablespoonsful to a gallon of water to which soap has been added.

"Black Leaf 40" has the endorsement of Agricultural Colleges, Experiment stations and orchardists. It is the World's leading aphis specific. It also kills the young larvae of many chewing insects when sprayed upon them so as to wet their bodies.

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Not So Clever

Husband (arriving home late): "Can't you guess where I've been?"

Wife: "I can; but tell your story."—"Answers."

Traveller: "Bring me another sandwich, please."

Waitress: "Will there be anything else?"

Traveller: "Yes, a paper weight. That last sandwich blew away."

SIR, HOW DARE YOU!

The prim old lady was dining one evening, and while the waiter was standing by the table she asked him to find out the title of the piece the orchestra was playing.

Other duties claimed the waiter for a time, and when he returned the lady had completely forgotten her request. Imagine her confusion when he bent toward her and softly whispered, "What Can I Do to Make You Love Me?"

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